

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: DRONG, D.C. Examiner #: 69332 Date: 4/21/03  
Art Unit: 1711 Phone Number 308-2437 Serial Number: 101040850  
Mail Box and Bldg/Room Location: 3/4229 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Formula of claim 22, Thanks.

## STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>K. Fuller</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
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Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>4/22/03</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>20</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>15</u>	Other _____	Other (specify) _____

=> FILE REG

FILE 'REGISTRY' ENTERED AT 10:38:13 ON 22 APR 2003

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 21 APR 2003 HIGHEST RN 503584-60-9

DICTIONARY FILE UPDATES: 21 APR 2003 HIGHEST RN 503584-60-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> FILE HCAPLUS

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FILE COVERS 1907 - 22 Apr 2003 VOL 138 ISS 17

FILE LAST UPDATED: 21 Apr 2003 (20030421/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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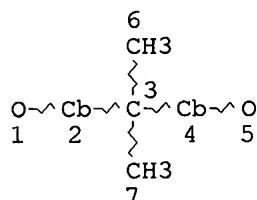
NODE ATTRIBUTES:

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CONNECT IS E1 RC AT 4  
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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
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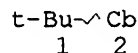
STEREO ATTRIBUTES: NONE  
 L4 STR 2



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 DEFAULT ECLEVEL IS LIMITED

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 NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE  
 L5 STR 3



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 DEFAULT ECLEVEL IS LIMITED

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 NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE  
 L7 SCR 2043

L9 12 SEA FILE=REGISTRY SSS FUL L3 AND L4 AND L5 AND L7  
 L10 11 SEA FILE=HCAPLUS ABB=ON L9

=> D L10 ALL 1-11 HITSTR

L10 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:540378 HCAPLUS

DN 137:233008

TI The Synthesis of Poly(arylene ether)s in Solution at Pilot-Plant Scale  
 with Control over Molecular Weight and End-Group Composition

AU Bender, Timothy P.; Burt, Richard A.; Hamer, Gord K.; DeVisser, Christine;  
 Smith, Paul F.; Saban, Marko

CS Xerox Research Centre of Canada, Mississauga, ON, L5K 2L1, Can.

SO Organic Process Research & Development (2002), 6(5), 714-720

*12 polymers from  
 structures 1 and 2 and 3*

*11 CA references*

*applicant*

*9/2002*

CODEN: OPRDFK; ISSN: 1083-6160

PB American Chemical Society

DT Journal

LA English

CC 35-5 (Chemistry of Synthetic High Polymers)

AB The lab.-scale optimization and pilot-plant-scale synthesis of a poly(aryl ether ketone) is reported. The polymer produced had the desired properties of low mol. wt. ( $M_w = 14\text{--}15\text{ kD}$ ,  $M_n = 6.3\text{--}6.5\text{ kD}$ ), reasonable polydispersity ( $PD = 2.37\text{--}2.39$ ), and well-defined controlled end groups. This has been accomplished using a one-step soln. polymn. of 4,4'-difluorobenzophenone (DFBP), bisphenol A (BPA), and 4-tert-butylphenol (tBP). The presence or absence of a stoichiometric amt. of tBP in the polymn. reaction dictated whether the obtained polymer possessed exclusively a halide or a tert-butylphenol terminus. Simple variation of the ratio of difluorobenzophenone to BPA controls the mol. wt. of the obtained polymer without affecting the polydispersity. Several other factors were examd. to completely optimize the polymn. process: the replacement of 4,4'-difluorobenzophenone with 4,4'-dichlorobenzophenone as a cost-saving measure, the effect of temp., and the effect of the concn. of the reactants.

ST difluorobenzophenone bisphenol A butylphenol polyarylene ether prepn soln polymn; mol wt difluorobenzophenone bisphenol A butylphenol polyarylene ether

IT Polyketones

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); PREP (Preparation); PROC (Process)

(polyether-, arom.; synthesis of poly(arylene ether)s in soln. at pilot-plant scale with control over mol. wt. and end-group compn.)

IT Polyethers, preparation

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); PREP (Preparation); PROC (Process)

(polyketone-, arom.; synthesis of poly(arylene ether)s in soln. at pilot-plant scale with control over mol. wt. and end-group compn.)

IT Polymerization

(soln.; synthesis of poly(arylene ether)s in soln. at pilot-plant scale with control over mol. wt. and end-group compn.)

IT Molecular weight

Polydispersity

Polymerization apparatus

Safety

(synthesis of poly(arylene ether)s in soln. at pilot-plant scale with control over mol. wt. and end-group compn.)

IT 25897-65-8P, Bisphenol A-4,4'-difluorobenzophenone copolymer

27178-34-3DP, tert-Butylphenol, reaction products with bisphenol

A-difluorobenzophenone copolymer 41205-96-3P, Bisphenol

A-4,4'-dichlorobenzophenone copolymer sru 113736-28-0P, Bisphenol

A-4,4'-dichlorobenzophenone copolymer 157972-93-5DP, reaction

products with butylphenol

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); PREP (Preparation); PROC (Process)

(synthesis of poly(arylene ether)s in soln. at pilot-plant scale with control over mol. wt. and end-group compn.)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; US 5739254 HCAPLUS

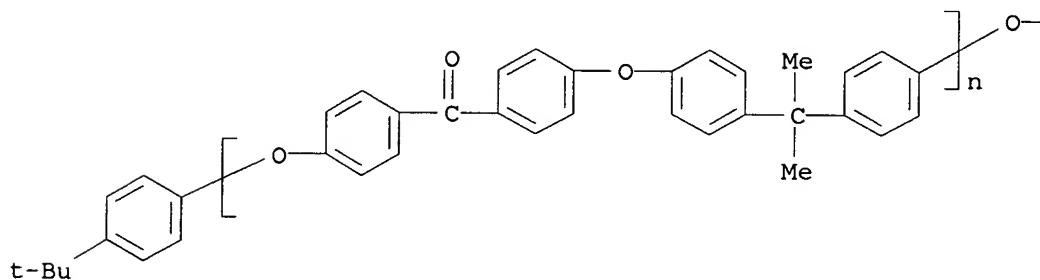
- (2) Anon; US 5753783 HCAPLUS
- (3) Anon; US 5761809 HCAPLUS
- (4) Anon; US 5863963 HCAPLUS
- (5) Anon; US 5907001 HCAPLUS
- (6) Anon; US 5945253 HCAPLUS
- (7) Anon; US 5958995 HCAPLUS
- (8) Anon; US 5994425 HCAPLUS
- (9) Anon; US 6020119 HCAPLUS
- (10) Anon; US 6087414 HCAPLUS
- (11) Anon; US 6090453 HCAPLUS
- (12) Anon; US 6124372 HCAPLUS
- (13) Anon; US 6139920 HCAPLUS
- (14) Anon; US 6184263 HCAPLUS
- (15) Anon; US 6187512 HCAPLUS
- (16) Cakmak, M; Plast Eng (N Y), (Handbook of Thermoplastics) 1997, V41, P931 HCAPLUS
- (17) Cotter, R; Engineering Plastics:A Handbook of Polyarylethers 1995, P28
- (18) Cotter, R; Engineering Plastics:A Handbook of Polyarylethers 1995, P289
- (19) Cotter, R; Engineering Plastics:A Handbook of Polyarylethers 1995, P45
- (20) El-Hibri, M; Plast Eng (N Y), Handbook of Thermoplastics 1997, V41, P893 HCAPLUS
- (21) Hay, A; Prog Polym Sci 1999, V24(1), P45 HCAPLUS
- (22) Labadie, J; ACS Symp Ser 1996, V624, P210 HCAPLUS
- (23) Rose, J; Polym Prepr (Am Chem Soc, Div Polym Chem) 1986, V27(1), P480 HCAPLUS

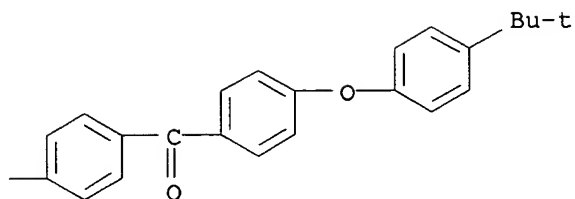
IT 157972-93-5DP, reaction products with butylphenol  
 RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); PREP (Preparation); PROC (Process)  
 (synthesis of poly(arylene ether)s in soln. at pilot-plant scale with control over mol. wt. and end-group compn.)

RN 157972-93-5 HCAPLUS

CN Poly[oxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,4-phenylene(1-methylethylidene)-1,4-phenylene], .alpha.-[4-(1,1-dimethylethyl)phenyl]-.omega.-[4-[[4-(1,1-dimethylethyl)phenoxy]benzoyl]phenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A





- L10 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2001:832475 HCAPLUS  
 DN 136:103098  
 TI Thermal and mechanical properties of poly(arylene ether ketone)s based on 5-tert-butyl-1,3-bis(4-fluorobenzoyl)benzene  
 AU Yildiz, Emel; Inan, Tulay Yilmaz; Yildirim, Huseyin; Kuyulu, Abdulkadir; Gungor, Attila  
 CS Department of Chemical Engineering, Material and Chemical Technologies Research Institute, TUBITAK-MRC, Gebze Kocaeli, 41470, Turk.  
 SO Macromolecular Materials and Engineering (2001), 286(10), 634-639  
 CODEN: MMENFA; ISSN: 1438-7492  
 PB Wiley-VCH Verlag GmbH  
 DT Journal  
 LA English  
 CC 37-5 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 35, 36  
 AB An arom. bishalide, 5-tert-butyl-1,3-bis(4-fluorobenzoyl)benzene was synthesized in high yield and purity by the reaction of 5-tert-butylisophthaloyl chloride and fluorobenzene, and polymd. by nucleophilic substitution reaction with com. available arom. bisphenols to prep. a series of high mol. wt. poly(arylene ether ketone)s contg. pendant tert-Bu groups. The effect of mol. structure on the phys., thermal, mech. and adhesion properties of the polymers was investigated.  
 ST butylbisfluorobenzoylbenzene synthesis polymn bisphenol deriv polyarylene polyether polyketone; thermal mech adhesion property water absorption polymer  
 IT Elongation, mechanical  
 (at break; of poly(arylene ether ketone)s)  
 IT Glass transition temperature  
 Shear strength  
 Tensile strength  
 Viscosity  
 Young's modulus  
 (of poly(arylene ether ketone)s)  
 IT Thermal stability  
 (oxidative; of poly(arylene ether ketone)s)  
 IT Polyketones  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (polyether-, arom., cardo; prepn. and properties of)  
 IT Polyketones  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (polyether-, arom., fluorine-contg.; prepn. and properties of)  
 IT Polyketones  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (polyether-, arom.; prepn. and properties of)  
 IT Fluoropolymers, preparation  
 Polysulfones, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polyether-polyketone-, arom.; prepn. and properties of)

IT Cardo polymers  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polyether-polyketones, arom.; prepn. and properties of)

IT Polyketones  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polyether-polysulfone-, arom.; prepn. and properties of)

IT Polyethers, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polyketone-, arom., cardo; prepn. and properties of)

IT Polyethers, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polyketone-, arom., fluorine-contg.; prepn. and properties of)

IT Polyethers, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polyketone-, arom.; prepn. and properties of)

IT Polyethers, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polyketone-polysulfone-, arom.; prepn. and properties of)

IT 7732-18-5, Water, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(absorption; of poly(arylene ether ketone)s)

IT 462-06-6, Fluorobenzene 2359-09-3, 5-tert-Butylisophthalic acid  
7719-09-7, Thionyl chloride  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in prepn. of butylbisfluorobenzoylbenzene monomer)

IT 153366-73-5P 153366-74-6P **161872-40-8P** 161872-42-0P  
161872-44-2P 197852-95-2P 197852-98-5P 389631-66-7P  
**389631-67-8P** 389631-68-9P 389631-69-0P 389631-70-3P  
389631-71-4P 389631-73-6P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and properties of)

IT 153366-67-7P  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP  
(Preparation); RACT (Reactant or reagent)  
(prepn. of and in polymn. with bisphenols)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

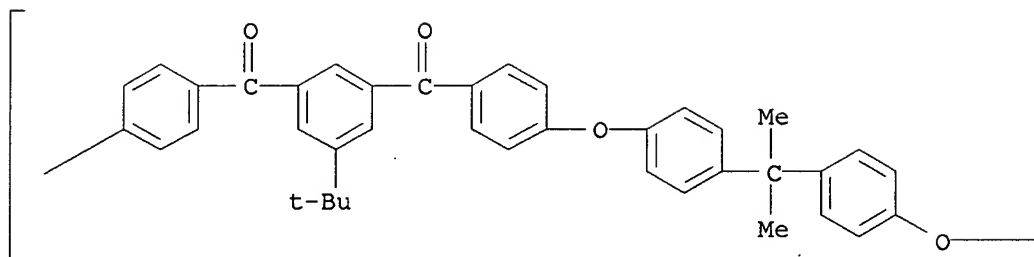
(1) Belbin, G; Philos Trans R Soc 1987, VA322, P451  
(2) Critchely, J; Heat-resistant polymers 1983  
(3) Han, Y; Macromolecules 1995, V28, P916 HCAPLUS  
(4) Hergenrother, P; Polymer 1988, V29, P358 HCAPLUS  
(5) Johnson, R; US 4108837 1978 HCAPLUS  
(6) Percec, V; J Polym Sci, Part A: Polym Chem 1995, V33, P331 HCAPLUS  
(7) Percec, V; Macromolecules 1994, V27, P1535 HCAPLUS  
(8) Selampinar, F; Synth Met 1997, V89, P111 HCAPLUS  
(9) Zhang, C; Macromolecules 1993, V26, P3324 HCAPLUS

IT **161872-40-8P 389631-67-8P**  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and properties of)

RN 161872-40-8 HCAPLUS

CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylenecarbonyl[5-(1,1-dimethylethyl)-1,3-phenylene]carbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



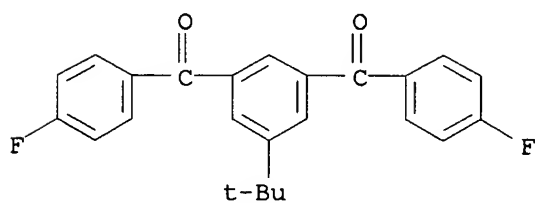
RN 389631-67-8 HCAPLUS

CN Methanone, [5-(1,1-dimethylethyl)-1,3-phenylene]bis[(4-fluorophenyl)-, polymer with 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 153366-67-7

CMF C24 H20 F2 O2

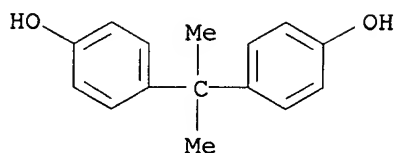


CM 2

CRN 80-05-7

CMF C15 H16 O2





- L10 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1997:76178 HCAPLUS  
 DN 126:172520  
 TI Gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol-A and dihydroxybenzophenone  
 AU Wright, C. T.; Paul, D. R.  
 CS Department of Chemical Engineering and Center for Polymer Research, The University of Texas at Austin, Austin, TX, 78712, USA  
 SO Journal of Membrane Science (1997), 124(2), 161-174  
 CODEN: JMESDO; ISSN: 0376-7388  
 PB Elsevier  
 DT Journal  
 LA English  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 36  
 AB Gas sorption and transport properties at 35 .degree.C are reported for a series of UV irradiated polyarylates prepd. from tetramethylbisphenol A (TMBPA), 4,4'-dihydroxybenzophenone (DHB), and 5-tert-Bu isophthalic acid dichloride (tBIA). UV irradsn. induces crosslinking and photo-Fries rearrangements in these polymers. The gas permeability of the polyarylates decreases with UV irradsn. due to redns. in the diffusion coeff.; however, the ideal selectivity for all gas pairs increases with UV irradsn. The effect of UV irradsn. on the gas transport properties of the polyarylates is compared with that reported in the literature for similar polyimide materials. The polyimides show much greater improvement in selectivity than do the current polyarylate materials. The photo-Fries rearrangements limit the amt. of crosslinking achievable in these polyarylate materials in spite of the fact that addnl. benzophenone units are formed.  
 ST crosslinked arom polyester gas sorption permeability  
 IT Polyesters, processes  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
 (gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A)  
 IT Diffusion  
 Solubility  
 Sorption  
 (gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone)  
 IT Permeability  
 (gas; gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone)  
 IT Crosslinking  
 Fries rearrangement  
 (photochem.; gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone in relation to)  
 IT Polyketones

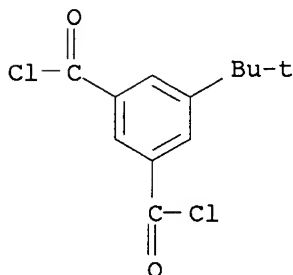
- Polyketones  
RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
PROC (Process)  
(polyester-; gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone)
- IT Polyketones  
Polyketones  
Polyketones  
RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
PROC (Process)  
(polyimide-, fluorine-contg.; gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone and polyimides)
- IT Polyketones  
Polyketones  
RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
PROC (Process)  
(polyimide-; gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone and polyimides)
- IT Fluoropolymers, processes  
RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
PROC (Process)  
(polyimide-polyketone-; gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone and polyimides)
- IT Polyimides, processes  
Polyimides, processes  
Polyimides, processes  
RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
PROC (Process)  
(polyketone-, fluorine-contg.; gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone and polyimides)
- IT Polyesters, processes  
Polyesters, processes  
RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
PROC (Process)  
(polyketone-; gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone)
- IT Polyimides, processes  
Polyimides, processes  
RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
PROC (Process)  
(polyketone-; gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone and polyimides)
- IT 139198-06-4, 5-tert-Butylisophthaloyl chloride-tetramethylbisphenol A copolymer 139198-29-1, 5-tert-Butylisophthaloyl chloride-tetramethylbisphenol A copolymer, SRU  
RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
PROC (Process)  
(gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A)
- IT 74-82-8, Methane, uses 124-38-9, Carbon dioxide, uses 1333-74-0, Hydrogen, uses 7727-37-9, Nitrogen, uses 7782-44-7, Oxygen, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(gas sorption and transport in UV-irradiated polyarylate copolymers

- based on tetramethylbisphenol A and dihydroxybenzophenone)
- IT 187083-63-2, 5-tert-Butylisophthaloyl chloride-4,4'-dihydroxybenzophenone-tetramethylbisphenol A copolymer  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
 (gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone)
- IT 96126-64-6, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-2,4,6-trimethyl-1,3-phenylenediamine copolymer, SRU 96211-26-6, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-2,4,6-trimethyl-1,3-phenylenediamine copolymer 115864-42-1, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride-2,4,6-trimethyl-1,3-phenylenediamine copolymer  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
 (gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone and polyimides)
- IT 187083-63-2, 5-tert-Butylisophthaloyl chloride-4,4'-dihydroxybenzophenone-tetramethylbisphenol A copolymer  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
 (gas sorption and transport in UV-irradiated polyarylate copolymers based on tetramethylbisphenol A and dihydroxybenzophenone)
- RN 187083-63-2 HCAPLUS
- CN 1,3-Benzenedicarbonyl dichloride, 5-(1,1-dimethylethyl)-, polymer with bis(4-hydroxyphenyl)methanone and 4,4'-(1-methylethylidene)bis[2,6-dimethylphenol] (9CI) (CA INDEX NAME)

CM 1

CRN 13239-25-3

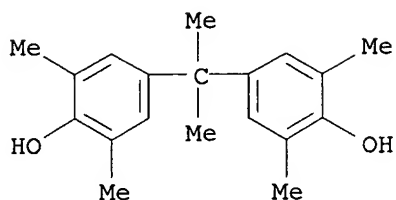
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CM 2

CRN 5613-46-7

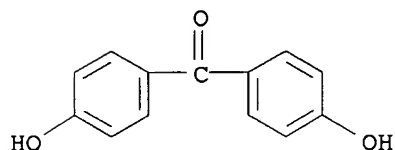
CMF C19 H24 O2



CM 3

CRN 611-99-4

CMF C13 H10 O3



L10 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1995:388056 HCAPLUS  
 DN 122:188320  
 TI Synthesis of high molecular weight poly(ether ketone)s by polycondensation of activated bis(aryl chloride)s with bisphenolates  
 AU Percec, V.; Grigoras, M.; Clough, R. S.; Fanjul, J.  
 CS Dep. of Macromolecular Science, Case Western Reserve Univ., Cleveland, OH, 44106, USA  
 SO Journal of Polymer Science, Part A: Polymer Chemistry (1995), 33(2), 331-44  
 CODEN: JPACEC; ISSN: 0887-624X  
 PB Wiley  
 DT Journal  
 LA English  
 CC 35-5 (Chemistry of Synthetic High Polymers)  
 AB Polyether-polyketones were prepd. by polycondensation of bis(aryl chlorides) with bisphenols; e.g., 1,3-bis(4-chlorobenzoyl)-5-tert-butylbenzene or 2,2'-bis(4-chlorobenzoyl)biphenyl with various bisphenols, and 2,2'-bis(4-hydroxyphenoxy)biphenyl with 4,4'-dichlorobenzophenone or 1,3-bis(4-chlorobenzoyl)benzene. The specific reaction conditions required to obtain high mol. wt. polymers are reported.  
 ST high mol wt polyether polyketone  
 IT Polyketones  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (polyether-, arom., prepn. of high mol. wt.)  
 IT Polyketones  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (polyether-polythioether-, arom., prepn. of high mol. wt.)  
 IT Polyethers, preparation  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (polyketone-, arom., prepn. of high mol. wt.)  
 IT Polyethers, preparation  
 RL: SPN (Synthetic preparation); PREP (Preparation)

(polyketone-polythioether-, arom., prepn. of high mol. wt.)

IT Polyethers, preparation  
RL: SPN (Synthetic preparation); PREP (Preparation)

(thio-, polyether-polyketone-, arom., prepn. of high mol. wt.)

IT 2479-46-1P 13118-94-0P, 1,3-Bis(4-Nitrophenoxy)benzene 65801-73-2P,  
4,4'-(2,2'-Biphenylylenedioxy)dianiline 65811-03-2P,  
2,2'-(4-Nitrophenoxy)biphenyl  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(intermediate; in prepn. of high mol. wt. polyether-polyketones)

IT 126716-90-3P, 4,4'-(m-Phenylenedioxy)diphenol 135208-37-6P,  
4,4'-(2,2'-Biphenylylenedioxy)diphenol 153366-66-6P,  
1-tert-Butyl-3,5-bis(4-chlorobenzoyl)benzene 153366-67-7P,  
1-tert-Butyl-3,5-bis(4-fluorobenzoyl)benzene  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(monomer; in prepn. of high mol. wt. polyether-polyketones)

IT 118455-24-6P, 2,2'-Biphenyldiol-4,4'-difluorobenzophenone copolymer sru  
118455-25-7P, 2,2'-Biphenyldiol-1,4-bis(4-fluorobenzoyl)benzene copolymer  
sru 135142-80-2P, 4,4'-(2,2'-Biphenylylenedioxy)diphenol-4,4'-  
difluorobenzophenone copolymer sru 135208-38-7P, 4,4'-(2,2'-  
Biphenylylenedioxy)diphenol-4,4'-difluorobenzophenone copolymer  
143566-14-7P, 2,2'-Bis(4-fluorobenzoyl)biphenyl-hydroquinone copolymer  
143566-16-9P, 2,2'-Bis(4-fluorobenzoyl)biphenyl-bisphenol A copolymer  
143566-17-0P, 2,2'-Bis(4-fluorobenzoyl)biphenyl-bisphenol A copolymer sru  
143566-19-2P, 2,2'-Bis(4-fluorobenzoyl)biphenyl-hydroquinone copolymer sru  
153366-71-3P, 1-tert-Butyl-3,5-bis(p-chlorobenzoyl)benzene-4,4'-  
oxydiphenol copolymer sru 153366-72-4P, 1-tert-Butyl-3,5-bis(p-  
chlorobenzoyl)benzene-4,4'-oxydiphenol copolymer 153366-73-5P,  
1-tert-Butyl-3,5-bis(p-fluorobenzoyl)benzene-hydroquinone copolymer  
153366-74-6P, 1-tert-Butyl-3,5-bis(p-fluorobenzoyl)benzene-hydroquinone  
copolymer sru 153366-75-7P, 1-tert-Butyl-3,5-bis(p-chlorobenzoyl)benzene-  
hydroquinone copolymer **161872-39-5P**, Bisphenol  
A-1-tert-butyl-3,5-bis(p-chlorobenzoyl)benzene copolymer  
**161872-40-8P**, Bisphenol A-1-tert-butyl-3,5-bis(p-  
chlorobenzoyl)benzene copolymer sru 161872-41-9P, 1-tert-Butyl-3,5-bis(p-  
chlorobenzoyl)benzene-4,4'-thiodiphenol copolymer 161872-42-0P,  
1-tert-Butyl-3,5-bis(p-chlorobenzoyl)benzene-4,4'-thiodiphenol copolymer  
sru 161872-43-1P, 4,4'-Biphenyldiol-1-tert-butyl-3,5-bis(p-  
chlorobenzoyl)benzene copolymer 161872-44-2P, 4,4'-Biphenyldiol-1-tert-  
butyl-3,5-bis(p-chlorobenzoyl)benzene copolymer sru 161872-45-3P,  
4,4'-(2,2'-Biphenylylenedioxy)diphenol-4,4'-dichlorobenzophenone copolymer  
161872-46-4P, 4,4'-(2,2'-Biphenylylenedioxy)diphenol-1,3-bis(4-  
fluorobenzoyl)benzene copolymer 161872-47-5P, 4,4'-(2,2'-  
Biphenylylenedioxy)diphenol-1,3-bis(4-fluorobenzoyl)benzene copolymer sru  
161872-48-6P, 4,4'-(2,2'-Biphenylylenedioxy)diphenol-1,3-bis(4-  
chlorobenzoyl)benzene copolymer 161872-49-7P, 2,2'-Bis(4-  
chlorobenzoyl)biphenyl-hydroquinone copolymer 161872-50-0P,  
2,2'-Bis(4-chlorobenzoyl)biphenyl-bisphenol A copolymer 161872-51-1P,  
2,2'-Bis(4-fluorobenzoyl)biphenyl-4,4'-oxydiphenol copolymer  
161872-52-2P, 2,2'-Bis(4-fluorobenzoyl)biphenyl-4,4'-oxydiphenol copolymer  
sru 161872-53-3P, 2,2'-Bis(4-chlorobenzoyl)biphenyl-4,4'-oxydiphenol  
copolymer 161872-54-4P, 2,2'-Bis(4-fluorobenzoyl)biphenyl-4,4'-(p-  
phenylenedioxy)diphenol copolymer 161872-55-5P, 2,2'-Bis(4-  
fluorobenzoyl)biphenyl-4,4'-(p-phenylenedioxy)diphenol copolymer sru  
161872-56-6P, 2,2'-Bis(4-chlorobenzoyl)biphenyl-4,4'-(p-  
phenylenedioxy)diphenol copolymer 161872-57-7P, 2,2'-Bis(4-  
fluorobenzoyl)biphenyl-4,4'-(m-phenylenedioxy)diphenol copolymer

161872-58-8P, 2,2'-Bis(4-fluorobenzoyl)biphenyl-4,4'-(m-phenylenedioxy)diphenol copolymer sru 161872-59-9P, 2,2'-Bis(4-chlorobenzoyl)biphenyl-4,4'-(m-phenylenedioxy)diphenol copolymer 161872-60-2P, 4,4'-(2,2'-Biphenylylenedioxy)diphenol-2,2'-bis(4-fluorobenzoyl)biphenyl copolymer 161872-61-3P, 4,4'-(2,2'-Biphenylylenedioxy)diphenol-2,2'-bis(4-fluorobenzoyl)biphenyl copolymer sru 161872-62-4P, 4,4'-(2,2'-Biphenylylenedioxy)diphenol-2,2'-bis(4-chlorobenzoyl)biphenyl copolymer 161872-63-5P, Catechol-2,2'-bis(4-fluorobenzoyl)biphenyl copolymer 161872-64-6P, Catechol-2,2'-bis(4-fluorobenzoyl)biphenyl copolymer sru 161872-65-7P, 3,3'-Biphenyldiol-2,2'-bis(4-fluorobenzoyl)biphenyl copolymer 161872-66-8P, 3,3'-Biphenyldiol-2,2'-bis(4-fluorobenzoyl)biphenyl copolymer sru 161872-67-9P, 2,2'-Biphenyldiol-4,4'-difluorobenzophenone copolymer 161872-68-0P, 2,2'-Biphenyldiol-1,3-bis(4-fluorobenzoyl)benzene copolymer 161872-69-1P, 2,2'-Biphenyldiol-1,3-bis(4-fluorobenzoyl)benzene copolymer sru 161872-70-4P, 2,2'-Biphenyldiol-1,4-bis(4-fluorobenzoyl)benzene copolymer 161872-71-5P, 2,2'-Biphenyldiol-4,4'-dichlorobenzophenone copolymer 161872-72-6P, 2,2'-Biphenyldiol-1,3-bis(p-chlorobenzoyl)benzene copolymer

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of high mol. wt. polyether-polyketones)

IT 2359-09-3, 5-tert-Butylisophthalic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant; in prepn. of high mol. wt. polyether-polyketones)

IT 100-00-5, p-Chloronitrobenzene 108-46-3, 1,3-Benzenediol, reactions 108-90-7, Chlorobenzene, reactions 462-06-6, Fluorobenzene 1806-29-7, 2,2'-Biphenyldiol

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; in prepn. of high mol. wt. polyether-polyketones)

IT 161872-39-5P, Bisphenol A-1-tert-butyl-3,5-bis(p-chlorobenzoyl)benzene copolymer 161872-40-8P, Bisphenol A-1-tert-butyl-3,5-bis(p-chlorobenzoyl)benzene copolymer sru

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of high mol. wt. polyether-polyketones)

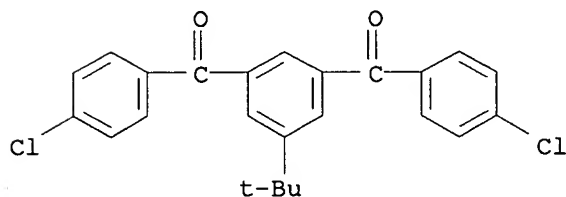
RN 161872-39-5 HCAPLUS

CN Methanone, [5-(1,1-dimethylethyl)-1,3-phenylene]bis[(4-chlorophenyl)-, polymer with 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 153366-66-6

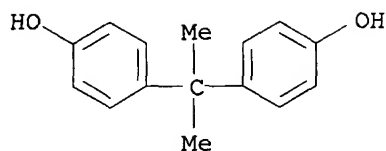
CMF C24 H20 Cl2 O2



CM 2

CRN 80-05-7

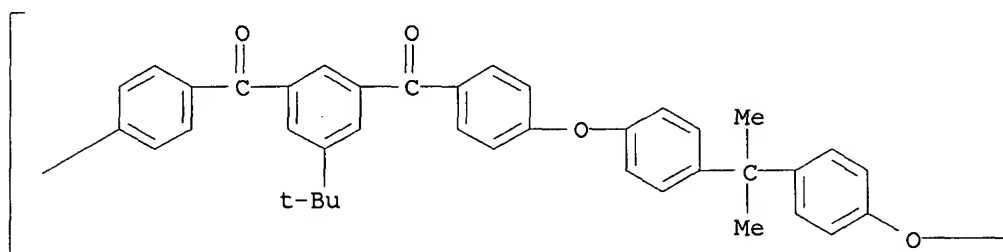
CMF C15 H16 O2



RN 161872-40-8 HCAPLUS

CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylenecarbonyl[5-(1,1-dimethylethyl)-1,3-phenylene]carbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)

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L10 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1994:580888 HCAPLUS  
 DN 121:180888  
 TI Amorphous bisphenol-A based poly(arylene ether) modified cyanate ester networks  
 AU Srinivasan, S. A.; McGrath, J. E.  
 CS Dep. Chem., Virginia Polytech. Inst. and State Univ., Blacksburg, VA, 24061-0212, USA  
 SO High Performance Polymers (1993), 5(4), 259-74  
 CODEN: HPPOEX; ISSN: 0954-0083  
 DT Journal  
 LA English  
 CC 37-5 (Plastics Manufacture and Processing)  
 AB Cyanate ester or triazine networks are receiving considerable attention as potential candidates for high-temp. adhesives and composite matrixes. Low

toughness is a major drawback with most crosslinked thermosetting materials, including the cyanate ester networks. Considerable attention has been devoted to the aspect of toughening such brittle networks in the authors' labs. Reactive functional thermoplastic toughness modifiers not only enhance toughness but also permit highly desirable stability to solvent stress cracking without seriously affecting the moderately high modulus. The authors have earlier reported on various aspects of this technol. as applied to epoxy and bismaleimide systems. Careful control of the heterophase morphol. structure is necessary to achieve significant toughening. In the present work, the authors have focused on modifications of a specific cyanate ester network system based on bisphenol-A with thermoplastic modifiers of varying backbone mol. wt. and chem. In particular, hydroxyl or cyanato functional bisphenol A-based amorphous poly(arylene ether sulfone)s and poly(arylene ether ketone)s have been successfully utilized. Blends of reactive and non-reactive polysulfones were also useful tougheners, apparently by allowing phase-size control. The use of poly(aryl ether ketone)s (which are of lower polarity than the polyarylene ether sulfones) resulted in larger, well-defined morphols., which in turn afforded tougher networks. Either hydroxyl or cyanato reactive end groups could be effectively utilized. Both were superior to non-reactive systems in terms of both mech. performance and solvent stability.

- ST polyisocyanurate toughened polyether polysulfone; polyketone polyether toughener polyisocyanurate
- IT Polyisocyanurates
  - RL: PRP (Properties)
  - (mech. and morphol. properties of polyether-polyketone- or polyether-polysulfone-toughened)
- IT Impact-resistant materials
  - (mech. and morphol. properties of polyisocyanurate toughened with polyether-polyketones or polyether-polysulfones)
- IT Glass temperature and transition
  - (of polyether-polyketone or polyether-polysulfone tougheners for polyisocyanurates)
- IT Polymer morphology
  - (of polyisocyanurate toughened with polyether-polyketones or polyether-polysulfones)
- IT Polyketones
  - Polysulfones, properties
  - RL: PRP (Properties)
  - (polyether-, mech. and morphol. properties of polyisocyanurate toughened with)
- IT Polyethers, properties
  - RL: PRP (Properties)
  - (polyketone-, mech. and morphol. properties of polyisocyanurate toughened with)
- IT Polyethers, properties
  - RL: PRP (Properties)
  - (polysulfone-, mech. and morphol. properties of polyisocyanurate toughened with)
- IT 1156-51-0, Arocy B10
  - RL: PRP (Properties)
  - (mech. and morphol. properties of polyether-polyketone- or polyether-polysulfone-toughened)
- IT 98-54-4D, 4-t-Butylphenol, reaction products with polyether-polyketones or polyether-polysulfones 506-68-3D, Bromocyanide, reaction products with polyether-polyketones or polyether-polysulfones 25135-51-7 25154-01-2, Bisphenol A-4,4'-dichlorodiphenylsulfone copolymer 25154-01-2D,



Bisphenol A-4,4'-dichlorodiphenylsulfone copolymer, reaction products with bromocyanide 41205-96-3 113736-28-0, Bisphenol A-4,4'-dichlorobenzophenone copolymer 113736-28-0D, reaction products with bromocyanide 118543-03-6 157972-92-4 **157972-93-5**

RL: PRP (Properties)

(mech. and morphol. properties of polyisocyanurate toughened with)

IT **157972-93-5**

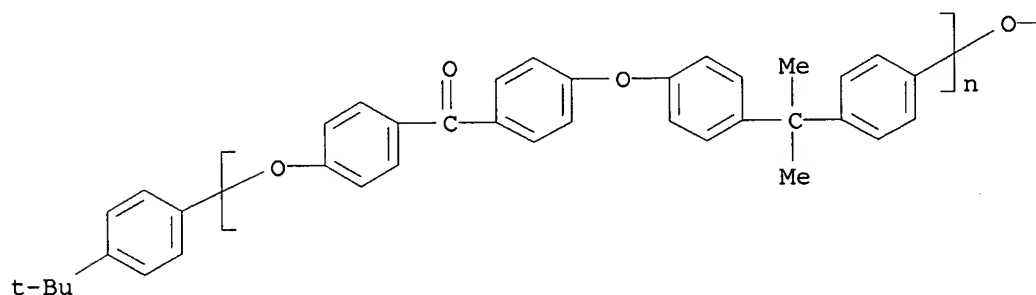
RL: PRP (Properties)

(mech. and morphol. properties of polyisocyanurate toughened with)

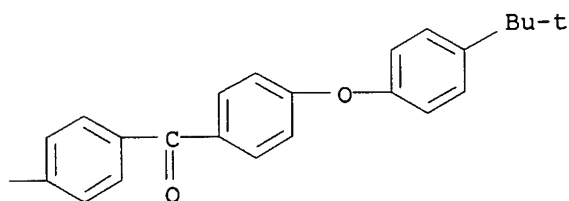
RN 157972-93-5 HCAPLUS

CN Poly[oxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,4-phenylene(1-methylethylidene)-1,4-phenylene], .alpha.-[4-(1,1-dimethylethyl)phenyl]-.omega.-[4-[[4-(1,1-dimethylethyl)phenoxy]benzoyl]phenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L10 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 1994:164991 HCAPLUS

DN 120:164991

TI Reductive Dehalogenation vs Substitution in the Polyetherification of Bis(aryl chloride)s Activated by Carbonyl Groups with Hydroquinones: A Potential Competition between SET and Polar Pathways

AU Percec, V.; Clough, R. S.; Rinaldi, P. L.; Litman, V. E.

CS Department of Macromolecular Science, Case Western Reserve University, Cleveland, OH, 44106, USA

SO Macromolecules (1994), 27(6), 1535-47

CODEN: MAMOBX; ISSN: 0024-9297

DT Journal  
LA English  
CC 35-3 (Chemistry of Synthetic High Polymers)  
AB Arom. poly(ether ketones) are frequently synthesized by nucleophilic substitution of the halide of a bis(aryl halide) by a bisphenolate. The bis(aryl halide) is activated toward nucleophilic attack by a carbonyl group. When the bisphenol is hydroquinone, bis(aryl fluorides) afford high mol. wt. polymers, whereas bis(aryl chlorides) often yield low mol. wt. polymers. This paper demonstrates that bis(aryl chlorides) and hydroquinones can be condensed to produce high mol. wt. polymers. The ability to obtain high mol. wt. polymers from bis(aryl chlorides) is dependent on the structure of the bisphenolate and the reaction conditions. The mol. wt. that can be achieved in the polyetherification of bis(aryl chlorides) with hydroquinone or substituted hydroquinones can be limited by the occurrence of reductive dehalogenation. Reductive dehalogenation has not been obsd. in the condensation of bisphenolates which are weaker electron donors (i.e., have less neg. oxidn. potentials) than the dianion of hydroquinone, such as the bisphenolates of 4,4'-isopropylidenediphenol (Bisphenol A or BPA), 4,4'-oxydiphenol (ODP), 1,1-bis(2-methyl-4-hydroxy-5-tert-butylphenyl)ethane (MHBPE), etc., with bis(aryl chlorides) under identical conditions to those used in the polyetherifications involving the hydroquinones. These results strongly suggest that reductive dehalogenation is due to single electron transfer (SET) from the dianion of hydroquinone (or substituted hydroquinones) to the 4-chlorobenzophenone moiety. In many cases, the mol. wts. of the polymers synthesized from bis(aryl chlorides) and hydroquinones are not detd. by the reactivity of the monomers but by their selectivity. The factors that govern the selectivity between arom. nucleophilic substitution and reductive dehalogenation are discussed.

ST electron transfer chlorobenzophenone hydroquinone dianion; ketone bisaryl chloride polyetherification hydroquinone; mechanism bischloroaryl ketone polymn hydroquinone; reductive dehalogenation bischloroaryl ketone hydroquinone; substitution bischloroaryl ketone polymn hydroquinone

IT Kinetics of electron exchange  
(between tert-butylhydroquinone dianion and and chlorobenzophenone moiety, polyetherification mechanism in relation to)

IT Chains, chemical  
(end-groups of, of arom. polyether-polyketones prepd. by polyetherification, polymn. mechanism in relation to)

IT Electric potential  
(oxidn., of tert-butylhydroquinone dianion, polyetherification of carbonyl group-activated bis(aryl halides) with hydroquinones in relation to)

IT Polyketones  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(polyether-, arom., prepn. of, by polyetherification of bis(aryl halides) activated by carbonyl groups with hydroquinones, mechanism of)

IT Polyethers, preparation  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(polyketone-, arom., prepn. of, by polyetherification of bis(aryl halides) activated by carbonyl groups with hydroquinones, mechanism of)

IT Electric potential  
(redn., of chlorobenzophenone, polyetherification of bis(aryl halides) activated by carbonyl groups with hydroquinones in relation to)

IT Polymerization  
(soln., of haloid-contg. arom. ketones with bisphenols, mechanism of, reductive dehalogenation vs. substitution in)

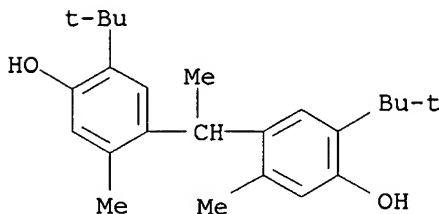
IT 2359-09-3P, 5-tert-Butylisophthalic acid

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and chlorination and benzylation of)  
 IT 25897-65-8P, Bisphenol A-4,4'-difluorobenzophenone copolymer 41205-96-3P  
 100344-02-3P 100344-94-3P 109521-12-2P 113736-28-0P, Bisphenol  
 A-4,4'-dichlorobenzophenone copolymer 119799-53-0P 119822-48-9P,  
 4,4'-Dichlorobenzophenone-2-tert-butyl-1,4-hydroquinone copolymer, SRU  
 136116-09-1P 136116-10-4P, 4,4'-Dichlorobenzophenone-2-tert-butyl-1,4-  
 hydroquinone copolymer 136116-11-5P 136327-54-3P 153366-69-9P  
**153366-70-2P** 153366-71-3P 153366-72-4P 153366-73-5P  
 153366-74-6P 153366-75-7P 153366-76-8P 153549-61-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and mol. wt. and identification of chain termination groups of)  
 IT 632-52-0, Tetraphenylhydrazine  
 RL: USES (Uses)  
 (prepn. and polyetherification of bis(aryl chlorides)s activated by  
 carbonyl groups with hydroquinones in presence of)  
 IT 1965-09-9P, Bis(4-hydroxyphenyl) ether 3772-18-7P, 1,1-Bis(2-methyl-4-  
 hydroxy-5-tert-butylphenyl)ethane  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (prepn. and polymn. of, with bis(aryl chlorides) activated by carbonyl  
 groups, mechanism of, reductive dehalogenation vs. substitution in)  
 IT 22198-44-3P, Methanone, 1,3-phenylenebis[(4-chlorophenyl)- 108464-88-6P,  
 Methanone, 1,3-phenylenebis[(4-fluorophenyl)- 153366-66-6P  
 153366-67-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (prepn. and polymn. of, with hydroquinones, mechanism of, reductive  
 dehalogenation vs. substitution in)  
 IT 153366-68-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of, as model for arom. polyether-polyketones)  
 IT **153366-70-2P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and mol. wt. and identification of chain termination groups of)  
 RN 153366-70-2 HCAPLUS  
 CN Methanone, bis(4-chlorophenyl)-, polymer with 4,4'-ethylidenebis[2-(1,1-  
 dimethylethyl)-5-methylphenol] and 4,4'-(1-methylethylidene)bis[phenol]  
 (9CI) (CA INDEX NAME)

CM 1

CRN 3772-18-7

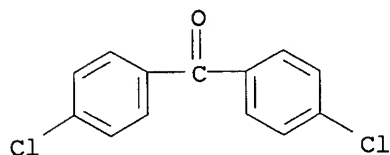
CMF C24 H34 O2



CM 2

CRN 90-98-2

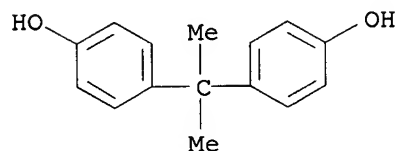
CMF C13 H8 Cl2 O



CM 3

CRN 80-05-7

CMF C15 H16 O2



L10 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 1993:518114 HCAPLUS

DN 119:118114

TI Poly(aryl ether)/liquid crystalline polyester block copolymers and their production

IN Kumpf, Robert J.; Wicks, Douglas A.; Nerger, Dittmar K.; Pielartzik, Harald; Wehrmann, Rolf

PA Miles Inc., USA

SO Can. Pat. Appl., 27 pp.

CODEN: CPXXEB

DT Patent

LA English

IC ICM C08G063-88

ICS C09K019-38

CC 35-5 (Chemistry of Synthetic High Polymers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2068286	AA	19921116	CA 1992-2068286	19920508
	US 5618889	A	19970408	US 1991-701425	19910515
PRAI	US 1991-701425		19910515		

AB The block copolymer is prepd. by transesterification of an ester-contg. poly(aryl ether ketone) and a liq. cryst. polyester in presence or absence of a catalyst and in solvent or melt blend. Thus, a 0.0952:0.1:0.0048 (molar) bisphenol A-difluorobenzophenone-4-hydroxyphenyl 4-hydroxybenzoate copolymer and 0.181:0.289:0.0722:0.181:0.00728 (molar) tert-butylhydroquinone-chloroterephthaloyl chloride-isophthaloyl chloride-phenylhydroquinone-phenylphenol copolymer were heated to 275.degree. in presence of KOAc and PhCl under N, PhCl distd. off, the

mixt. cooled, dissolved in CH<sub>2</sub>Cl<sub>2</sub>, pptd. in MeOH and dried to give the block copolymer with wt.-av. mol. wt. 35,000, which formed an isotropic melt.

ST liq cryst block copolyester; polyether polyketone block polyester

IT Liquid crystals, polymeric  
(block polyether-polyester-polyketones, prepn. and properties of)

IT Polymerization  
(block, of ester-contg. poly(ether ketone) with liq. cryst. polyesters)

IT Polymerization catalysts  
(block, potassium acetate, for transesterification of polyethers with liq. cryst polyesters)

IT Polysulfones, preparation  
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(polyester-polyether-, arom., prepn. and block polymn. of, with liq. cryst. polyesters)

IT Polyketones  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(polyester-polyether-, arom., block)

IT Polyethers, preparation  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(polyester-polyketone-, arom., block)

IT Polyethers, preparation  
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(polyester-polysulfone-, arom., prepn. and block polymn. of, with liq. cryst. polyesters)

IT Polyesters, preparation  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(polyether-polyketone-, arom., block)

IT Polyesters, preparation  
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(polyether-polysulfone-, arom., prepn. and block polymn. of, with liq. cryst. polyesters)

IT 149751-66-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(liq. cryst., block polymn. of, with poly(ether ketones))

IT 137426-11-0P 149751-65-5P  
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and block polymn. of, with liq. cryst. polyesters)

IT 25897-65-8P 41205-96-3P  
RL: PREP (Preparation)  
(prepn. of)

IT **149751-67-7P**  
RL: PREP (Preparation)  
(prepn. of, from liq.-cryst. polyester and ester-contg. polyether polyketone)

IT 127-08-2, Potassium acetate  
RL: CAT (Catalyst use); USES (Uses)  
(transesterification catalyst, for block polymn. of polyether-polyketones and liq. cryst. polyesters)

IT **149751-67-7P**  
RL: PREP (Preparation)  
(prepn. of, from liq.-cryst. polyester and ester-contg. polyether polyketone)

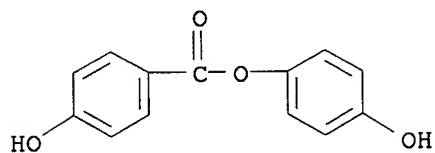
RN 149751-67-7 HCAPLUS

CN 1,3-Benzenedicarbonyl dichloride, polymer with [1,1'-biphenyl]-2,5-diol, bis(4-fluorophenyl)methanone, 2-chloro-1,4-benzenedicarbonyl dichloride, 2-(1,1-dimethylethyl)-1,4-benzenediol, 4-hydroxyphenyl 4-hydroxybenzoate and 4,4'-(1-methylethylidene)bis[phenol], block (9CI) (CA INDEX NAME)

CM 1

CRN 28084-48-2

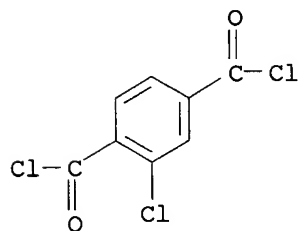
CMF C13 H10 O4



CM 2

CRN 13815-87-7

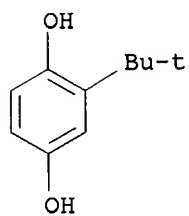
CMF C8 H3 Cl3 O2



CM 3

CRN 1948-33-0

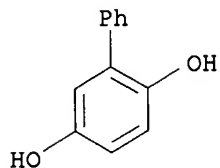
CMF C10 H14 O2



CM 4

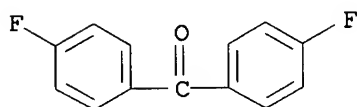
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CMF C12 H10 O2



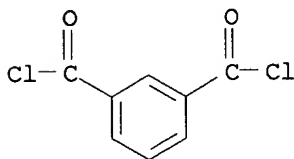
CM 5

CRN 345-92-6  
CMF C13 H8 F2 O



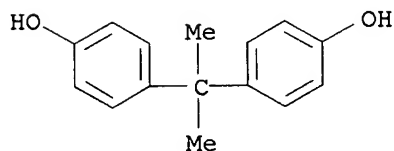
CM 6

CRN 99-63-8  
CMF C8 H4 Cl2 O2



CM 7

CRN 80-05-7  
CMF C15 H16 O2



L10 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 1992:84290 HCAPLUS

DN 116:84290

TI Synthesis and physical properties of soluble, amorphous poly(ether ketone)s containing the o-dibenzoylbenzene moiety

AU Singh, Rina; Hay, Allan S.

- CS Dep. Chem., McGill Univ., Montreal, QC, H3A 2K6, Can.  
SO Macromolecules (1992), 25(3), 1017-24  
CODEN: MAMOBX; ISSN: 0024-9297  
DT Journal  
LA English  
CC 35-5 (Chemistry of Synthetic High Polymers)  
AB Fluoro monomers contg. 1,2-dibenzoylbenzene moiety were prep'd. in very high yields. These fluoro monomers poly'd. with bisphenols in the presence of excess anhyd. K<sub>2</sub>CO<sub>3</sub> in MeCONMe<sub>2</sub> to give high-mol.-wt. amorphous poly(aryl ether ketones) which are very sol. in solvents such as CHCl<sub>3</sub> and PhMe at room temp., have glass transition temps. 160-313.degree., and are easily cast into flexible, colorless and transparent films. The 5% wt. losses by thermogravimetric anal. for these materials were all >500.degree..  
ST dibenzoylbenzene contg fluoro monomer; polyether polyketone  
IT dibenzoylbenzene contg; glass temp polyether polyketone dibenzoylbenzene  
IT Glass temperature and transition  
(of arom. polyether-polyketones contg. dibenzoylbenzene group)  
IT Polyketones  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(polyether-, arom., dibenzoylbenzene group-contg., prepn. and characterization of)  
IT Polyketones  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(polyether-, arom., dibenzoylbenzene group-contg., reaction products, with di-tert-butylphenol, prepn. and characterization of)  
IT Polyethers, preparation  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(polyketone-, arom., dibenzoylbenzene group-contg., prepn. and characterization of)  
IT Polyethers, compounds  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(polyketone-, arom., dibenzoylbenzene group-contg., reaction products, with di-tert-butylphenol, prepn. and characterization of)  
IT 1138-52-9DP, 3,5-Di-tert-butylphenol, reaction products with arom. polyether-polyketones 132980-73-5DP, reaction products with di-tert-butylphenol 132980-73-5P 132980-74-6DP, reaction products with di-tert-butylphenol 132980-74-6P 132980-75-7DP, reaction products with di-tert-butylphenol 132980-75-7P 132980-78-0P 132980-79-1P 132980-80-4P **138181-12-1P 138181-13-2P** 138181-19-8P 138181-20-1P 138181-21-2P 138181-22-3P 138181-23-4P 138181-24-5P 138181-31-4P 138181-32-5P 138181-33-6P 138181-34-7P 138181-35-8P 138181-36-9P 138181-37-0P 138181-43-8P 138181-44-9P 138234-73-8P **138234-74-9P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and characterization of)  
IT 132980-72-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and conversion of)  
IT 132980-68-8P, 1,3-Bis(4-fluorophenyl)-4,7-dihydroisobenzofuran  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and conversion of, to bis(fluorobenzoyl)benzene)  
IT 132980-69-9P, 1,3-Bis(4-fluorophenyl)-4,7-dihydro-4,7-diphenylisobenzofuran  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and conversion of, to bis(fluorobenzoyl)diphenylbenzene)  
IT 132980-64-4P, 1,2-Bis(4-fluorobenzoyl)-3,6-diphenylbenzene 132980-70-2P, 1,2-Bis(4-fluorobenzoyl)benzene 132980-71-3P, 1,2-Bis(4-fluorobenzoyl)-



3,4,5,6-tetraphenylbenzene  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and polymn. of, with bisphenols)

IT 138234-72-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and reaction of, with butadiene)

IT 133039-85-7P, 1,2-Bis(4-fluorobenzoyl)acetylene  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and reaction of, with tetraphenylcyclopentadienone)

IT 132980-66-6P, 4,5-Bis(4-fluorobenzoyl)cyclohexene 132980-67-7P,  
1,2-Bis(4-fluorobenzoyl)-3,6-diphenylcyclohex-4-ene  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and rearrangement of)

IT 479-33-4, Tetraphenylcyclopentadienone  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with bis(fluorobenzoyl)acetylene)

IT 106-99-0, 1,3-Butadiene, reactions 538-81-8, trans,trans-1,4-Diphenyl-  
1,3-butadiene  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with bis(fluorobenzoyl)ethylene)

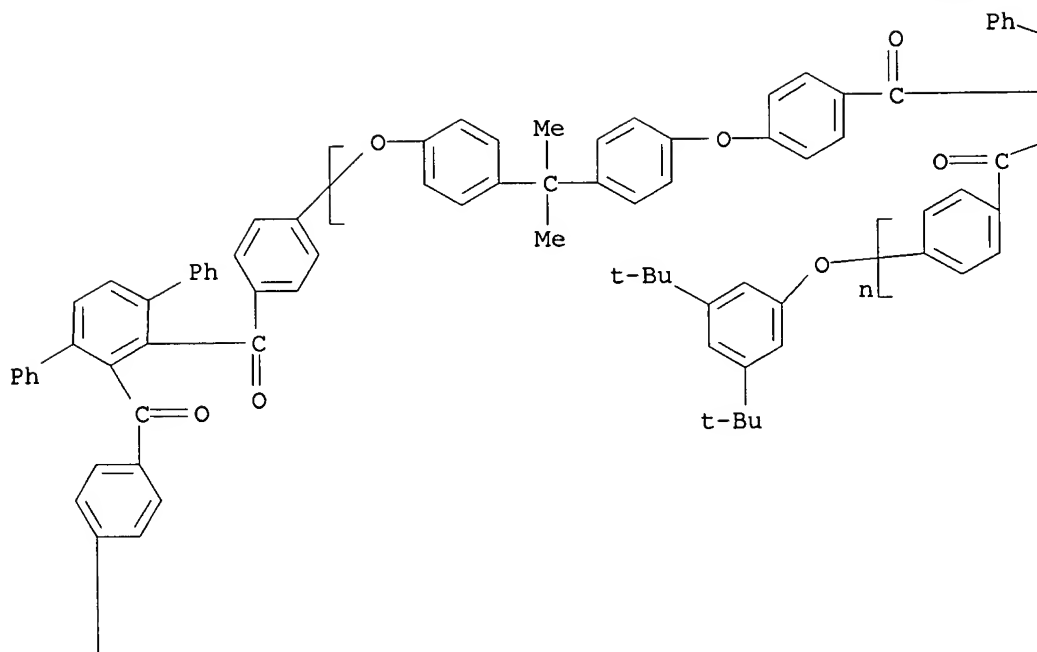
IT 627-63-4, Fumaryl chloride  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with fluorobenzene)

IT 462-06-6, Fluorobenzene  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with fumaryl chloride)

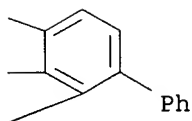
IT **138181-12-1P 138181-13-2P 138234-74-9P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and characterization of)

RN 138181-12-1 HCAPLUS  
CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-  
phenylenecarbonyl[1,1':4',1''-terphenyl]-2',3'-diylcarbonyl-1,4-  
phenylene], .alpha.-[4-[[3'-[4-[3,5-bis(1,1-dimethylethyl)phenoxy]benzoyl]  
[1,1':4',1''-terphenyl]-2'-yl]carbonyl]phenyl]-.omega.-[3,5-bis(1,1-  
dimethylethyl)phenoxy]- (9CI) (CA INDEX NAME)

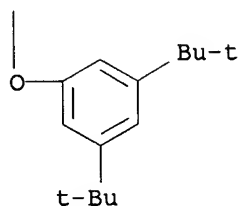
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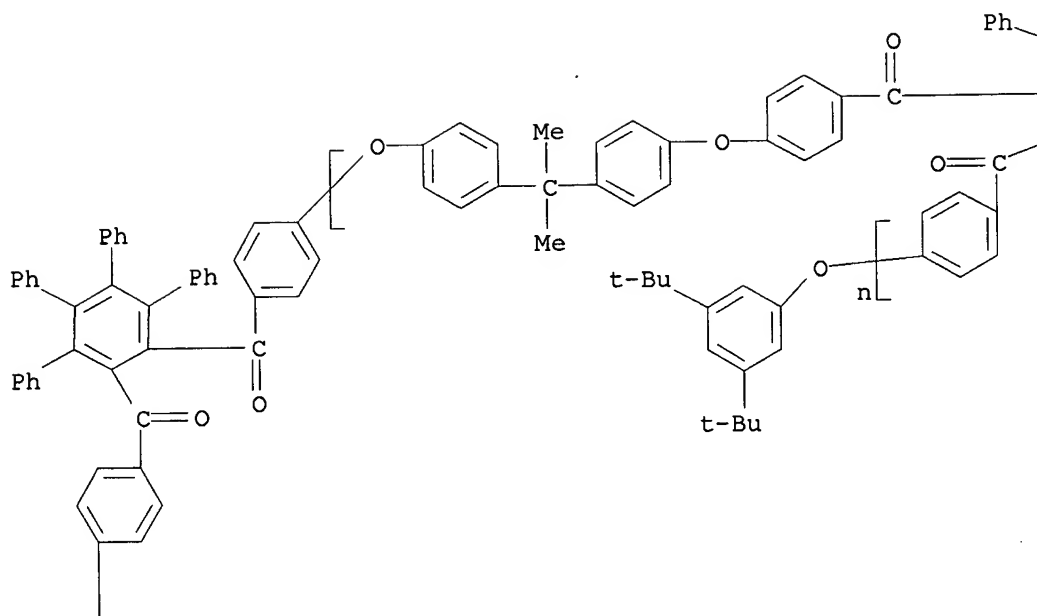


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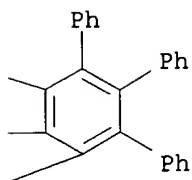


RN 138181-13-2 HCAPLUS  
 CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylenecarbonyl(5',6'-diphenyl[1,1':2',1''-terphenyl]-3',4'-diyl)carbonyl-1,4-phenylene], .alpha.-[4-[[4'-[4-[3,5-bis(1,1-dimethylethyl)phenoxy]benzoyl]-5',6'-diphenyl[1,1':2',1''-terphenyl]-3'-yl]carbonyl]phenyl]-.omega.-[3,5-bis(1,1-dimethylethyl)phenoxy]- (9CI)  
 (CA INDEX NAME)

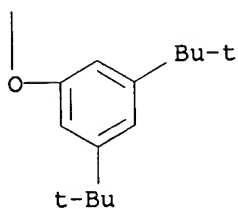
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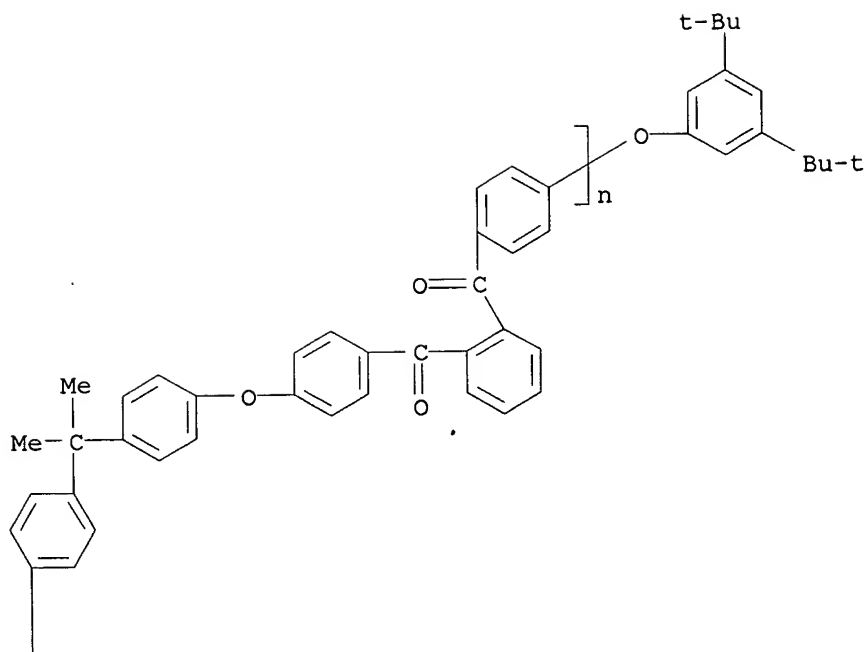


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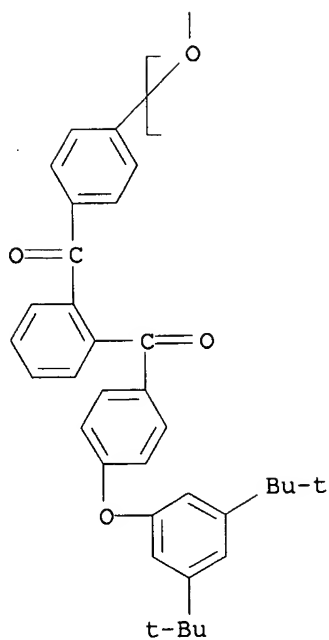


RN 138234-74-9 HCAPLUS  
 CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylenecarbonyl-1,2-phenylenecarbonyl-1,4-phenylene],  
 .alpha.-[4-[2-[4-[3,5-bis(1,1-dimethylethyl)phenoxy]benzoyl]benzoyl]phenyl]  
 ]-.omega.-[3,5-bis(1,1-dimethylethyl)phenoxy]- (9CI) (CA INDEX NAME)

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DN 116:60139  
 TI Synthesis and physical properties of amorphous poly(aryl ether isoquinoline)s  
 AU Singh, Rina; Hay, Allan S.  
 CS Dep. Chem., McGill Univ., Montreal, QC, H3A 2K6, Can.  
 SO Macromolecules (1992), 25(3), 1033-40  
 CODEN: MAMOBX; ISSN: 0024-9297  
 DT Journal  
 LA English  
 CC 35-7 (Chemistry of Synthetic High Polymers)  
 AB The prepn. of poly(aryl ether isoquinolines) was described via an intramol. ring-closure reaction of poly(aryl ether ketones) contg. the o-dibenzoylbenzene moiety with benzylamine in the presence of 1,8-diazabicyclo[5.4.0]undecene in refluxing ClPh. The prepn. of copolymers of poly(aryl ether ketones) and poly(aryl ether isoquinolines) was demonstrated and the copolymer contents were detd. by 1H NMR studies. Ring-closure reactions of previously prepd. end-capped poly(aryl ether ketones) to poly(aryl ether isoquinolines) were done to det. exact mol. wts. of the resulting polymers. Various fluoro-substituted isoquinoline monomers were prepd. and polymd. with bisphenols in N-methylcaprolactam in the presence of excess K2CO3. The high-mol.-wt. polymers showed glass temp. 225-320.degree.. Studies by TGA showed polymer 5% wt. losses in air and N at >500.degree..  
 ST arom polyether isoquinoline prepn property; glass temp arom polyether isoquinoline; polyketone polyether reaction benzylamine; bisphenol polymn fluoro substituted isoquinoline  
 IT Glass temperature and transition  
 (of arom. poly(ether isoquinolines))  
 IT Permeability and Permeation  
 (of oxygen, through arom. poly(ether isoquinolines))  
 IT Polyethers, preparation  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (arom., isoquinoline group-contg., prepn. and properties of)  
 IT 7782-44-7, Oxygen, properties  
 RL: PRP (Properties)  
 (permeation of, through arom. poly(ether isoquinolines))  
 IT 138181-05-2P 138181-06-3P 138181-07-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and polymn. of, with bisphenols)  
 IT 100-46-9DP, Benzylamine, reaction products with arom. polyether-polyketones contg. dibenzoylbenzene group 105451-78-3DP, reaction products with benzylamine 132100-40-4DP, reaction products with benzylamine 132980-74-6DP, reaction products with benzylamine 132980-75-7DP, reaction products with benzylamine 132980-78-0DP, reaction products with benzylamine 132980-79-1DP, reaction products with benzylamine 132980-80-4DP, reaction products with benzylamine 138181-11-0DP, reaction products with benzylamine 138181-12-1DP, reaction products with benzylamine 138181-13-2DP, reaction products with benzylamine 138181-14-3P 138181-15-4P 138181-16-5P 138181-17-6P 138181-18-7P 138181-19-8DP, reaction products with benzylamine 138181-20-1DP, reaction products with benzylamine 138181-21-2DP, reaction products with benzylamine 138181-22-3DP, reaction products with benzylamine 138181-23-4DP, reaction products with benzylamine 138181-24-5DP, reaction products with benzylamine 138181-33-6DP, reaction products with benzylamine 138181-34-7DP, reaction products with benzylamine 138181-35-8DP, reaction products with benzylamine 138181-36-9DP, reaction products with

benzylamine 138181-37-0DP, reaction products with benzylamine  
138181-38-1P 138181-39-2P 138181-40-5P 138181-41-6P 138181-42-7P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and properties of)

IT 132980-64-4 132980-70-2 132980-71-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with benzylamine)

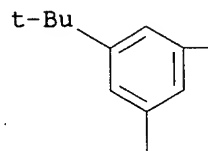
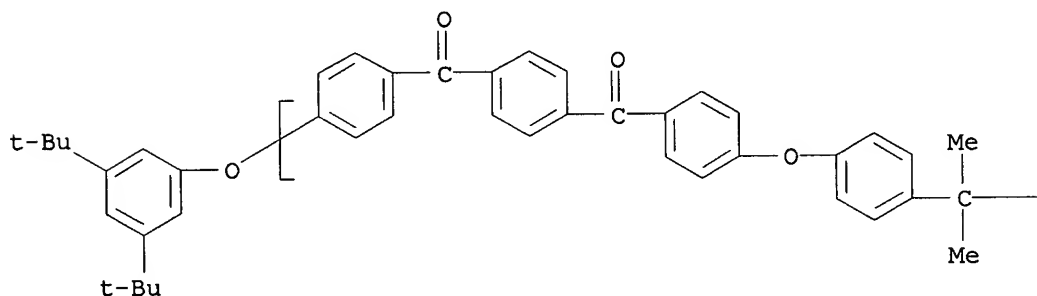
IT 100-46-9, Benzylamine, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with bis(fluorobenzoyl)benzenes)

IT 138181-11-ODP, reaction products with benzylamine  
138181-12-IDP, reaction products with benzylamine  
138181-13-2DP, reaction products with benzylamine  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and properties of)

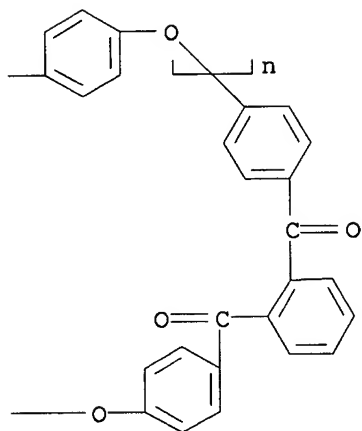
RN 138181-11-0 HCAPLUS

RN 138181-11-0 HCAFL05  
 CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylenecarbonyl-1,4-phenylenecarbonyl-1,4-phenylene],  
 .alpha.-[4-[2-[4-[3,5-bis(1,1-dimethylethyl)phenoxy]benzoyl]benzoyl]phenyl  
 ]-.omega.-[3,5-bis(1,1-dimethylethyl)phenoxy]- (9CI) (CA INDEX NAME)

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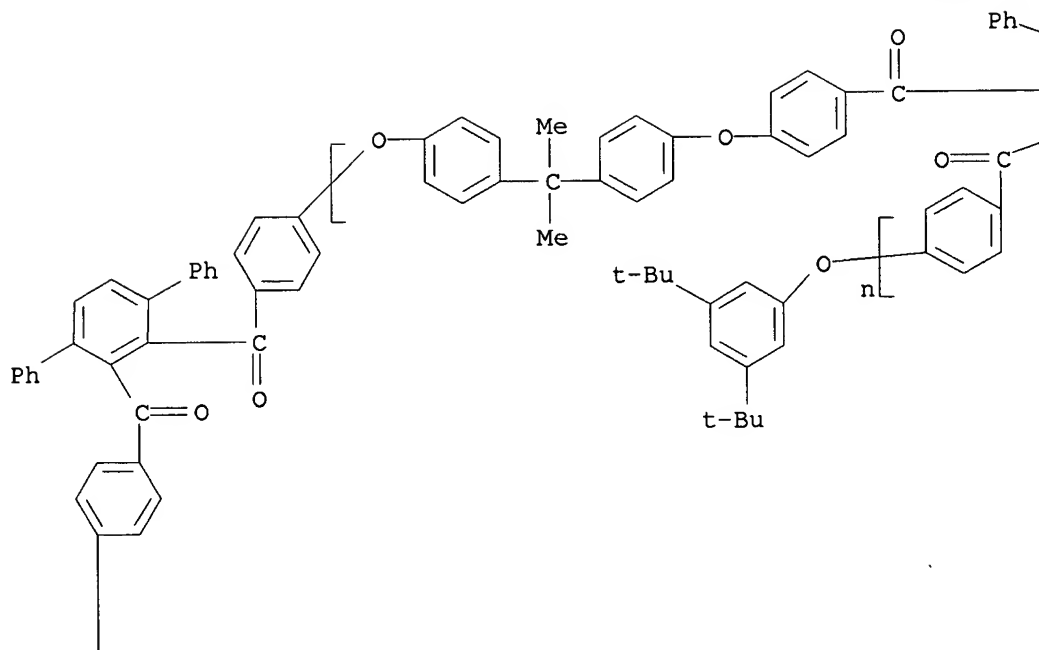


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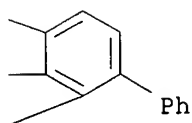
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RN 138181-12-1 HCAPLUS  
 CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylenecarbonyl[1,1':4',1''-terphenyl]-2',3'-diylcarbonyl-1,4-phenylene], .alpha.-[4-[[3'-[4-[3,5-bis(1,1-dimethylethyl)phenoxy]benzoyl][1,1':4',1''-terphenyl]-2'-yl]carbonyl]phenyl]-.omega.-[3,5-bis(1,1-dimethylethyl)phenoxy]- (9CI) (CA INDEX NAME)

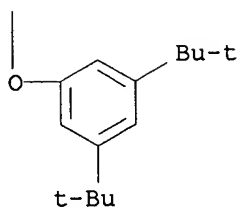
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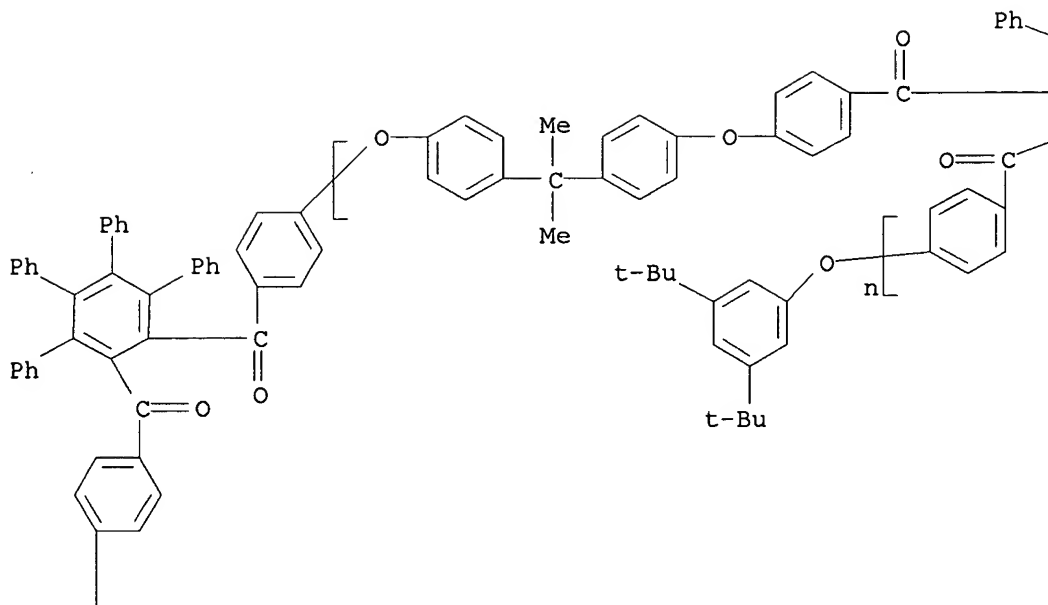
PAGE 2-A



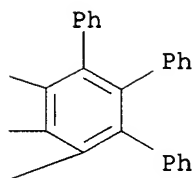
RN 138181-13-2 HCAPLUS  
 CN Poly[oxy-1,4-phenylene (1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylenecarbonyl (5',6'-diphenyl [1,1':2',1''-terphenyl]-3',4'-diyl) carbonyl-1,4-phenylene], .alpha.-[4-[[4'-[4-[3,5-bis(1,1-dimethylethyl)phenoxy]benzoyl]-5',6'-diphenyl [1,1':2',1''-terphenyl]-3'-yl] carbonyl]phenyl]-.omega.-[3,5-bis(1,1-dimethylethyl)phenoxy]- (9CI)  
 (CA INDEX NAME)



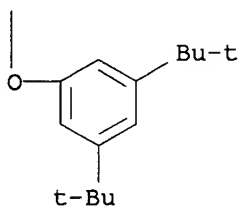
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L10 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1992:60138 HCAPLUS  
 DN 116:60138  
 TI Synthesis and physical properties of poly(aryl ether phthalazine)s  
 AU Singh, Rina; Hay, Allan S.  
 CS Dep. Chem., McGill Univ., Montreal, QC, H3A 2K6, Can.  
 SO Macromolecules (1992), 25(3), 1025-32

CODEN: MAMOBX; ISSN: 0024-9297

DT Journal

LA English

CC 35-7 (Chemistry of Synthetic High Polymers)

AB The synthesis of poly(aryl ether phthalazines) is described via an intramol. ring-closure reaction of poly(aryl ether ketones) contg. the o-dibenzoylbenzene moiety with hydrazine monohydrate. The synthesis of copolymers of poly(aryl ether ketones) and poly(aryl ether phthalazines) was demonstrated and the copolymer ratios were detd. by 1H NMR studies. Various fluoro-substituted phthalazine monomers were prepd. and polymd. with bisphenols in N-methyl-2-pyrrolidinone in the presence of excess K2CO3. High-mol.-wt. polymers were obtained with glass transition temps. 235-340.degree.. Thermal stabilities for the resulting materials by TGA showed polymer decompn. temps. (5% wt. loss) in air and in nitrogen ranging 460-535.degree.. The polymn. of 3,6-bis(4-fluorophenyl)pyridazine with 4,4'-(1-methylethylidene)bisphenol also afforded a new class of polymers, the poly(aryl ether pyridazines).

ST arom polyether phthalazine prepn property; glass temp arom polyether phthalazine; hydrazine monohydrate reaction polyether polyketone; bisfluorophenylpyridazine polymn bisphenol

IT Glass temperature and transition  
(of arom. poly(ether phthalazines))

IT Permeability and Permeation  
(of oxygen, through arom. poly(ether phthalazines))

IT Polyethers, preparation  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(arom., phthalazine group-contg., prepn. and properties of)

IT 7782-44-7, Oxygen, properties  
RL: PRP (Properties)  
(permeation of, through arom. poly(ether phthalazines))

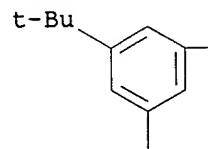
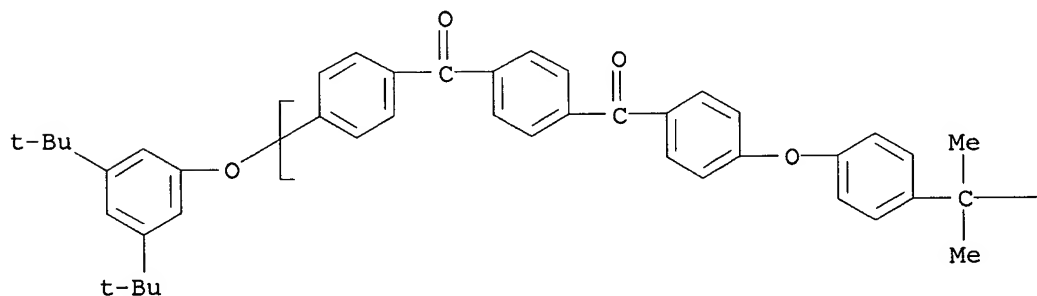
IT 138181-10-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and polymn. of, with bisphenol A)

IT 132980-65-5P 138181-08-5P 138181-09-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and polymn. of, with bisphenols)

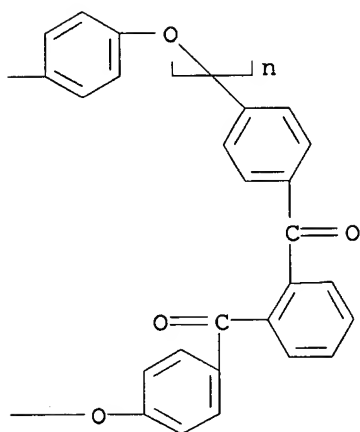
IT 7803-57-8DP, Hydrazine monohydrate, reaction products with arom.  
polyether-polyketones 105451-78-3DP, reaction products with hydrazine  
monohydrate 132100-40-4DP, reaction products with hydrazine monohydrate  
132980-74-6DP, reaction products with hydrazine monohydrate  
132980-75-7DP, reaction products with hydrazine monohydrate  
132980-78-0DP, reaction products with hydrazine monohydrate  
132980-79-1DP, reaction products with hydrazine monohydrate  
132980-80-4DP, reaction products with hydrazine monohydrate  
**138181-11-0DP**, reaction products with hydrazine monohydrate  
**138181-12-1DP**, reaction products with hydrazine monohydrate  
**138181-13-2DP**, reaction products with hydrazine monohydrate  
138181-19-8DP, reaction products with hydrazine monohydrate  
138181-20-1DP, reaction products with hydrazine monohydrate  
138181-21-2DP, reaction products with hydrazine monohydrate  
138181-22-3DP, reaction products with hydrazine monohydrate  
138181-23-4DP, reaction products with hydrazine monohydrate  
138181-24-5DP, reaction products with hydrazine monohydrate 138181-25-6P  
138181-26-7P 138181-27-8P 138181-28-9P 138181-29-0P 138181-30-3P  
138181-31-4DP, reaction products with hydrazine monohydrate  
138181-32-5DP, reaction products with hydrazine monohydrate

138181-33-6DP, reaction products with hydrazine monohydrate  
 138181-34-7DP, reaction products with hydrazine monohydrate  
 138181-35-8DP, reaction products with hydrazine monohydrate  
 138181-36-9DP, reaction products with hydrazine monohydrate  
 138181-37-0DP, reaction products with hydrazine monohydrate  
 138181-43-8DP, reaction products with hydrazine monohydrate  
 138181-44-9DP, reaction products with hydrazine monohydrate 138181-46-1P  
 138181-47-2P 138181-48-3P 138181-50-7P 138181-52-9P 138181-53-0P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and properties of)  
 IT 7803-57-8, Hydrazine monohydrate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with bis(fluorobenzoyl)benzene)  
 IT 25650-13-9 132980-64-4 132980-70-2 132980-71-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with hydrazine monohydrate)  
 IT 138181-11-0DP, reaction products with hydrazine monohydrate  
 138181-12-1DP, reaction products with hydrazine monohydrate  
 138181-13-2DP, reaction products with hydrazine monohydrate  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and properties of)  
 RN 138181-11-0 HCAPLUS  
 CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylenecarbonyl-1,4-phenylenecarbonyl-1,4-phenylene],  
 .alpha.-[4-[2-[4-[3,5-bis(1,1-dimethylethyl)phenoxy]benzoyl]benzoyl]phenyl  
 ]-.omega.-[3,5-bis(1,1-dimethylethyl)phenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

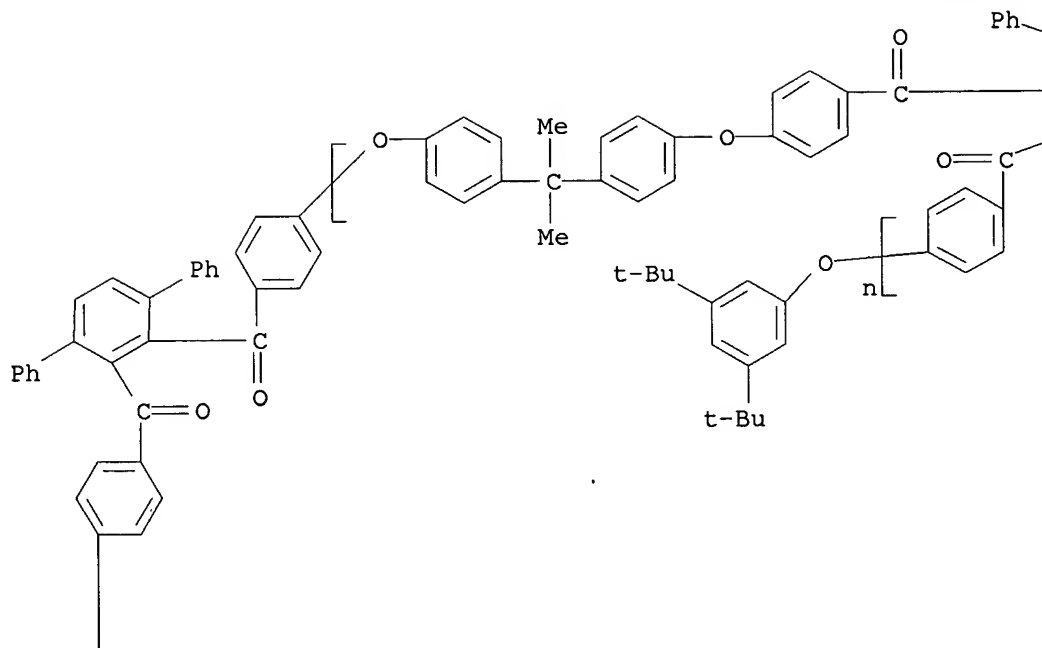


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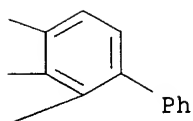
|  
t-Bu

RN 138181-12-1 HCAPLUS  
 CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylenecarbonyl[1,1':4',1''-terphenyl]-2',3'-diylcarbonyl-1,4-phenylene], .alpha.-[4-[[3'-[4-[3,5-bis(1,1-dimethylethyl)phenoxy]benzoyl][1,1':4',1''-terphenyl]-2'-yl]carbonyl]phenyl]-.omega.-[3,5-bis(1,1-dimethylethyl)phenoxy]- (9CI) (CA INDEX NAME)

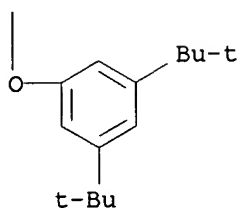
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PAGE 1-B



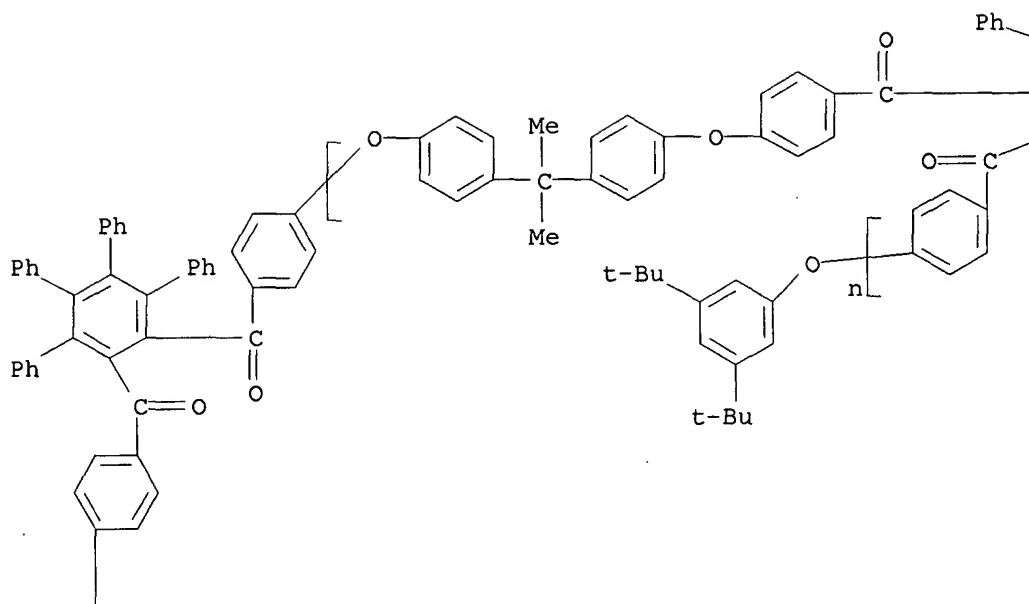
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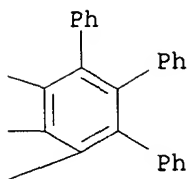
RN 138181-13-2 HCAPLUS

CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylenecarbonyl(5',6'-diphenyl[1,1':2',1''-terphenyl]-3',4'-diyl)carbonyl-1,4-phenylene], .alpha.-[4-[[4'-[4-[3,5-bis(1,1-dimethylethyl)phenoxy]benzoyl]-5',6'-diphenyl[1,1':2',1''-terphenyl]-3'-yl]carbonyl]phenyl]-.omega.-[3,5-bis(1,1-dimethylethyl)phenoxy]- (9CI)  
(CA INDEX NAME)

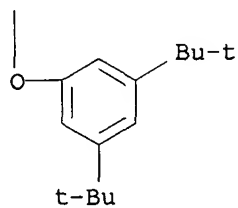
PAGE 1-A



PAGE 1-B



PAGE 2-A



L10 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 1967:403646 HCAPLUS

DN 67:3646

TI Fiber-forming condensation polyesters having enhanced resistance to photodegradation

IN Maerov, Sidney B.

PA du Pont de Nemours, E. I., and Co.

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

SO U.S., 9 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 NCL 260047000  
 CC 39 (Textiles)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3308095		19670307	US	19610131
GI	For diagram(s), see printed CA Issue.				
AB	Linear, fiber-forming condensation polyesters having enhanced uv light stability were prepd. by condensing bifunctional, ester-forming monomers free of ethylenic unsatn. with 0.1-10 mole % of uv absorbing, ester-linking trihydroxybenzophenones or 2-benzamidophenyl-2H-benzotriazoles. Thus, a reaction mixt. contg. an equal no. of moles of 2,2-bis(4-hydroxyphenyl)propane diacetate and isophthalic acid and 3 mole % of the 2,4- and 2',4'-diacetates of 2,2',4-trihydroxybenzophenone (I) was heated to 245.degree. and the temp. was increased to 300.degree. as the HOAc was distd. The pressure was reduced to 1.0 mm. and the polymn. was continued for 2 hrs. No trihydroxybenzophenone could be extd. from the polymer which m. 270.degree. and had an inherent viscosity of 0.50. A yarn, melt spun from the polymer, showed a light discoloration after 24 hrs. exposure to uv radiation while a similar yarn prepd. without I discolored after 2 hrs. exposure. Other modifying agents used were 2,2',4-trihydroxy - 5 - tert - butylbenzophenone, 2-(3',5'-dicarboxybenzamido-2-phenyl)-2H-benzotriazole, 2-(3',5'-dicarbomethoxybenzamido-2-phenyl)-2H-benzotriazole, 2,2'-dihydroxy-4,4'-bis(.beta.-hydroxyethoxy)benzophenone, 2-(3',5'-dicarboxybenzenesulfonamido-2-phenyl)-2H-benzotriazole (II), and 2,2'-dihydroxy-4,4'-dicarboxymethoxybenzophenone. The compds. were also incorporated into poly(ethylene terephthalate) and 2,6-naphthalic acid-ethylene glycol polyesters.				
ST	POLYESTERS LIGHT STABLE; BENZOTRIAZOLES UV ABSORBENTS; UV ABSORBENTS BENZOTRIAZOLES; TRIHYDROXYBENZOPHENONES UV ABSORBENTS; BENZOPHENONES UV ABSORBENTS; LIGHT STABLE POLYESTERS				
IT	Fiber, polyester, preparation RL: PREP (Preparation) (2-benzamidophenyl-2H-benzotriazole or trihydroxybenzophenone copolyesters for uv light-stable)				
IT	Light, ultraviolet, chemical and physical effects (stabilizers, trihydroxybenzophenone polyesters, for fibers)				
IT	Benzophenone, 2,2',4-trihydroxy-, derivs., polyesters Benzophenone, 2,4,4'-trihydroxy-, derivs., polyesters RL: USES (Uses) (for uv light-stable fibers)				
IT	<b>30977-36-7P</b> RL: PREP (Preparation) (manuf. of and uv light-stable films therefrom)				
IT	30977-31-2P RL: PREP (Preparation) (manuf. of, and uv light-stable fibers therefrom)				
IT	30977-46-9P 30977-47-0P RL: PREP (Preparation) (manuf. of, and uv light-stable films)				
IT	<b>30977-36-7P</b> 30977-44-7P 30977-45-8P RL: PREP (Preparation) (manuf. of, and uv light-stable films therefrom)				

IT 30977-44-7P  
 RL: PREP (Preparation)  
 (manuf. of, and uv light-stable films thereof)

IT 30977-32-3P 30977-35-6P 30977-43-6P  
 RL: PREP (Preparation)  
 (manuf. of, for uv light-stable fibers)

IT 30977-28-7P 30977-37-8P 30977-46-9P 30977-47-0P 30977-48-1P  
 RL: PREP (Preparation)  
 (manuf. of, for uv light-stable films)

IT 30977-45-8P 30977-47-0P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of)

IT **30977-36-7P**  
 RL: PREP (Preparation)  
 (manuf. of and uv light-stable films therefrom)

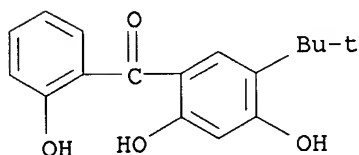
RN 30977-36-7 HCAPLUS

CN Isophthalic acid, polyester with 5-tert-butyl-2,2',4-trihydroxybenzophenone and 4,4'-isopropylidenediphenol (8CI) (CA INDEX NAME)

CM 1

CRN 15167-70-1

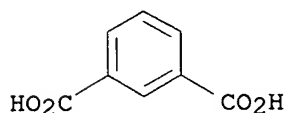
CMF C17 H18 O4



CM 2

CRN 121-91-5

CMF C8 H6 O4

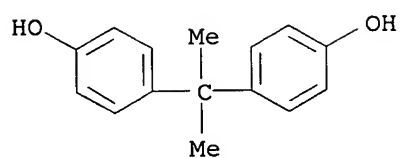


CM 3

CRN 80-05-7

CMF C15 H16 O2





RL: PREP (Preparation)  
 (manuf. of, and uv light-stable films therefrom

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

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FILE 'USPAT2' ENTERED AT 13:19:01 ON 21 APR 2003  
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> **s Bender, Timothy P./in**

L1 0 BENDER, TIMOTHY P./IN

=> **s polyarylene ether# and solvent# and (difluorobenzophenone or difluoro-benzopheno**

L2 86 POLYARYLENE ETHER# AND SOLVENT# AND (DIFLUOROBENZOPHENONE OR  
DIFLUORO-BENZOPHENONE)

=> **s 12 and (dimethylacetamide or sulfolane or dimethyl formamide or dimethyl sulfoxi**

L3 72 L2 AND (DIMETHYLACETAMIDE OR SULFOLANE OR DIMETHYL FORMAMIDE  
OR DIMETHYL SULFOXIDE OR METHYL PYRROLIDINONE OR HEXAMETHYLPHOSP  
HORIC TRAMIDE)

=> **s 13 and (potassium carbonate or cesium carbonate)**

L4 71 L3 AND (POTASSIUM CARBONATE OR CESIUM CARBONATE)

=> **s 14 and heat? and water**

L5 71 L4 AND HEAT? AND WATER

=> **s 1;5 and reflux**

3 FILES SEARCHED...

L6 2196677 L

5 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> **s 15 and reflux**

L7 55 L5 AND REFLUX

=> **s 12 and (dimethylacetamide or dimethyl acetamide) and (potassium carbonate or ces**

L8 70 L2 AND (DIMETHYLACETAMIDE OR DIMETHYL ACETAMIDE) AND (POTASSIUM  
CARBONATE OR CESIUM CARBONATE)

=> **d 17 1-55**

L7 ANSWER 1 OF 55 EUROPATFULL COPYRIGHT 2003 WILA

Full  
Text

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 1117102 EUROPATFULL ED 20010730 EW 200129 FS OS

TIEN Method of manufacturing material for forming insulating film.  
TIDE Verfahren zur Herstellung von Material zur Herstellung von isolierenden  
Filmen.  
TIFR Procédé de fabrication de matériaux pour la fabrication de films  
isolants.  
IN Suzuki, Hidenori, 11-301, Shoufu, 1, Morigayama-cho, Yokkaichi, Mie, JP;  
Kakinoki, Katsuyuki, 12-208, 1, Morigayama-cho, Yokkaichi, Mie, JP;  
Nakase, Yoshihisa, 317, Uninaka, Meiwa, Taki Gun, Mie, JP;  
Nishikawa, Michinori, 2-6-1-401, Umezono, Tsukuba, Ibaraki, JP;  
Okada, Takashi, 2-15-12-501, Umezono, Tsukuba, Ibaraki, JP;  
Yamada, Kinji, 2-18-33-M1-2, Umezono, Tsukuba, Ibaraki, JP  
PA JSR Corporation, 11-24, Tsukiji 2-chome, Chuo-ku, Tokyo, JP  
SO Wila-EPZ-2001-H29-T2b  
DS R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE;  
R IT; R LI; R LU; R MC; R NL; R PT; R SE; R TR; R AL; R LT; R LV; R MK;  
R RO; R SI  
PIT EPA2 EUROPÄISCHE PATENTANMELDUNG  
PI EP 1117102 A2 20010718  
OD 20010718  
AI EP 2001-100925 20010116  
PRAI JP 2000-2000007385 20000117  
JP 2000-2000175684 20000612  
IC ICM H01B003-46  
ICS H01B003-42 C08G085-00 C08G077-34

L7 ANSWER 2 OF 55 EUROPATFULL COPYRIGHT 2003 WILA

Full  
Text

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 918256 EUROPATFULL ED 19990606 EW 199921 FS OS  
TIEN Imaging members containing high performance charge transporting  
polymers.  
TIDE Bildherstellungselemente die Ladungstransportpolymere hoher Leistung  
enthalten.  
TIFR Membres de production d' images, comprenant des polymeres de transport  
de charge a haute performance.  
IN Fuller, Timothy J., 67 Railroad Mills Road, Pittsford, New York  
14534-4023, US;  
Teuscher, Leon A., 94 Frankhauser Road, Williamsville New York 14221,  
US;  
Pai, Damodar M., 72 Shagbark Way, Fairport New York 14450, US;  
Yanus, John F., 924 Little Bardfield Road, Webster New York 14580, US  
PA XEROX CORPORATION, Xerox Square, Rochester, New York 14644, US  
SO Wila-EPZ-1999-H21-T2a  
DS R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE;  
R IT; R LI; R LU; R MC; R NL; R PT; R SE  
PIT EPA2 EUROPÄISCHE PATENTANMELDUNG  
PI EP 918256 A2 19990526  
OD 19990526  
AI EP 1998-121408 19981111  
PRAI US 1997-976238 19971121  
IC ICM G03G005-05  
ICS G03G005-147

L7 ANSWER 3 OF 55 EUROPATFULL COPYRIGHT 2003 WILA

Full  
Text

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 827033 EUROPATFULL ED 19980316 EW 199810 FS OS  
TIEN High performance curable polymers and processes for the preparation

thereof.

TIDE Haertbare Hochleistungspolymere und Verfahren zu ihrer Herstellung.

TIFR Polymeres durcissables a haute performance, et procedes de leur preparation.

IN Narang, Ram S., 5 Hunters Drive South, Fairport, NY 14450, US;  
Fuller, Timothy J., 67 Railroad Mills Road, Pittsford, NY 14534-4023, US

PA XEROX CORPORATION, Xerox Square, Rochester New York 14644, US

SO Wila-EPZ-1998-H10-T2a

DS R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT;  
R LI; R LU; R MC; R NL; R PT; R SE

PIT EPA2 EUROPÄISCHE PATENTANMELDUNG

PI EP 827033 A2 19980304

OD 19980304

AI EP 1997-306210 19970815

PRAI US 1996-705372 19960829

IC ICM G03F007-038

L7 ANSWER 4 OF 55 EUROPATFULL COPYRIGHT 2003 WILA

Full  
Text

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 827032 EUROPATFULL ED 19980316 EW 199810 FS OS

TIEN Aqueous developable high performance curable polymers.

TIDE In Wasser entwickelbare, haertbare Hochleistungspolymere.

TIFR Polymeres a haute performance, durcissables et developpables en milieu aqueux.

IN Narang, Ram S., 390 Hillside Circle, Macedon, NY 14502-9323, US;  
Fuller, Timothy J., 67 Railroad Mills Road, Pittsford, NY 14534-4023, US

PA XEROX CORPORATION, Xerox Square, Rochester New York 14644, US

SO Wila-EPZ-1998-H10-T2a

DS R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT;  
R LI; R LU; R MC; R NL; R PT; R SE

PIT EPA2 EUROPÄISCHE PATENTANMELDUNG

PI EP 827032 A2 19980304

OD 19980304

AI EP 1997-306209 19970815

PRAI US 1996-697760 19960829

IC ICM G03F007-038

L7 ANSWER 5 OF 55 EUROPATFULL COPYRIGHT 2003 WILA

Full  
Text

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 827031 EUROPATFULL ED 19980316 EW 199810 FS OS

TIEN Blends containing curable polymers.

TIDE Haertbare Polymere enthaltende Mischungen.

TIFR Melanges contenant des polymeres durcissables.

IN Narang, Ram S., 5 Hunters Drive South, Fairport, NY 14450, US;  
Fuller, Timothy J., 67 Railroad Mills Road, Pittsford, NY 14534-4023, US

PA XEROX CORPORATION, Xerox Square, Rochester New York 14644, US

SO Wila-EPZ-1998-H10-T2a

DS R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT;  
R LI; R LU; R MC; R NL; R PT; R SE

PIT EPA2 EUROPÄISCHE PATENTANMELDUNG

PI EP 827031 A2 19980304

OD 19980304

AI EP 1997-306208 19970815

PRAI US 1996-705376 19960829

IC ICM G03F007-038

L7 ANSWER 6 OF 55 EUROPATFULL COPYRIGHT 2003 WILA

Full  
Text

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 827028 EUROPATFULL ED 19980316 EW 199810 FS OS  
 TIEN Hydroxyalkated high performance curable polymers.  
 TIDE Hydroxyalkylierte, haertbare Hochleistungspolymere.  
 TIFR Polymeres a haute performance, hydroxyalkyles et durcissables.  
 IN Narang, Ram S., 5 Hunters Drive South, Fairport NY 14450, US;  
 Fuller, Timothy J., 67 Railroad Mills Road, Pittsford NY 14534-4023, US  
 PA XEROX CORPORATION, Xerox Square, Rochester New York 14644, US  
 SO Wila-EPZ-1998-H10-T2a  
 DS R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT;  
 R LI; R LU; R MC; R NL; R PT; R SE  
 PIT EPA2 EUROPAEISCHE PATENTANMELDUNG  
 PI EP 827028 A2 19980304  
 OD 19980304  
 AI EP 1997-306199 19970815  
 PRAI US 1996-705365 19960829  
 IC ICM G03F007-038

L7 ANSWER 7 OF 55 EUROPATFULL COPYRIGHT 2003 WILA

Full  
Text

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 827027 EUROPATFULL ED 19980316 EW 199810 FS OS  
 TIEN Curable compositions.  
 TIDE Haertbare Zusammensetzungen.  
 TIFR Compositions durcissables.  
 IN Narang, Ram S., 5 Hunters Drive South, Fairport, NY 14450, US;  
 Fuller, Timothy J., 67 Railroad Mills Road, Pittsford, NY 14534-4023,  
 US;  
 Smith, Thomas W., 22 Hidden Meadow, Penfield, NY 14526, US;  
 Luca, David J., 983 North Winton Road, Rochester, NY 14609, US;  
 Mosher, Ralph A., 124 Belmont Street, Rochester, NY 14620, US  
 PA XEROX CORPORATION, Xerox Square, Rochester New York 14644, US  
 SO Wila-EPZ-1998-H10-T2a  
 DS R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT;  
 R LI; R LU; R MC; R NL; R PT; R SE  
 PIT EPA2 EUROPAEISCHE PATENTANMELDUNG  
 PI EP 827027 A2 19980304  
 OD 19980304  
 AI EP 1997-306198 19970815  
 PRAI US 1996-705375 19960829  
 IC ICM G03F007-038

L7 ANSWER 8 OF 55 EUROPATFULL COPYRIGHT 2003 WILA

Full  
Text

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 827026 EUROPATFULL ED 19980316 EW 199810 FS OS  
 TIEN Processes for substituting haloalkylated polymers with unsaturated  
 ester, ether, and alkylcarboxymethylene groups.  
 TIDE Verfahren zur Substitution von haloalkylierten Polymeren mit  
 ungesaettigten Ester-, Ether- und Alkylcarboxymethylengruppen.  
 TIFR Procèdes de substitution de polymeres haloalkyles avec des groupements  
 insatures esters, ethers et alkylcarboxymethylene.  
 IN Fuller, Timothy J., 67 Railroad Mills Road, Pittsford, NY 14534-4023,

US;  
 Narang, Ram S., 5 Hunters Drive South, Fairport, NY 14450, US;  
 Smith, Thomas W., 22 Hidden Meadow, Penfield, NY 14526, US;  
 Luca, David J., 983 North Winton Road, Rochester, NY 14609, US;  
 Crandall, Raymond K., 88 Butler Drive, Pittsford, NY 14534, US  
 PA XEROX CORPORATION, Xerox Square, Rochester New York 14644, US  
 SO Wila-EPZ-1998-H10-T2a  
 DS R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT;  
 R LI; R LU; R MC; R NL; R PT; R SE  
 PIT EPA2 EUROPÄISCHE PATENTANMELDUNG  
 PI EP 827026 A2 19980304  
 OD 19980304  
 AI EP 1997-306196 19970815  
 PRAI US 1996-705479 19960829  
 IC ICM G03F007-038

L7 ANSWER 9 OF 55 EUROPATFULL COPYRIGHT 2003 WILA

Full  
Text

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 826700 EUROPATFULL ED 19980316 EW 199810 FS OS  
 TIEN Process for haloalkylation of high performance polymers.  
 TIDE Verfahren zur Haloalkylierung von Hochleistungspolymeren.  
 TIFR Procédé d'haloalkylation de polymères à haute performance.  
 IN Fuller, Timothy J., 67 Railroad Mills Road, Pittsford, NY 14534-4023,  
 US;  
 Narang, Ram S., 5 Hunters Drive South, Fairport, NY 14450, US;  
 Smith, Thomas W., 22 Hidden Meadow, Penfield, NY 14526, US;  
 Luca, David J., 983 North Winton Road, Rochester, NY 14609, US;  
 Crandall, Raymond K., 88 Butler Drive, Pittsford, NY 14534, US  
 PA XEROX CORPORATION, Xerox Square, Rochester New York 14644, US  
 SO Wila-EPZ-1998-H10-T1a  
 DS R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT;  
 R LI; R LU; R MC; R NL; R PT; R SE  
 PIT EPA2 EUROPÄISCHE PATENTANMELDUNG  
 PI EP 826700 A2 19980304  
 OD 19980304  
 AI EP 1997-306206 19970820  
 PRAI US 1996-705463 19960829  
 IC ICM C08F008-24

L7 ANSWER 10 OF 55 EUROPATFULL COPYRIGHT 2003 WILA

Full  
Text

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 413257 EUROPATFULL ED 20000820 EW 199108 FS OS STA B  
 TIEN Cyclic poly(aryl ether) oligomers, a process for preparation thereof,  
 and polymerization of cyclic poly (aryl ether) oligomers.  
 TIDE Zyklische Poly(arylaether)-Oligomere, deren Herstellungsverfahren sowie  
 die Polymerisation von zyklischen Poly(arylaether)-Oligomeren.  
 TIFR Oligomères de poly(aryl-ether) cyclique, leur procédé de préparation et  
 polymérisation d'oligomères de poly(aryl-ether) cyclique.  
 IN Mullins, Michael J., 710 Chatham Drive, Midland, Michigan 48640, US;  
 Woo, Edmund P., 300 Mayfield Lane, Midland, Michigan 48640, US  
 PA THE DOW CHEMICAL COMPANY, 2030 Dow Center Abbott Road P.O. Box 1967,  
 Midland Michigan 48640-1967, US  
 SO Wila-EPZ-1991-H08-T1  
 DS R AT; R BE; R CH; R DE; R ES; R FR; R GB; R IT; R LI; R NL; R SE  
 PIT EPA2 EUROPÄISCHE PATENTANMELDUNG  
 PI EP 413257 A2 19910220

OD 19910220  
 AI EP 1990-115283 19900809  
 PRAI US 1989-393503 19890814  
 US 1989-402177 19890901  
 IC ICM C08G065-40  
 ICS C08L071-10

L7 ANSWER 11 OF 55 USPATFULL

Full Text	Citing References
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AN 2002:69747 USPATFULL  
 TI High performance curable polymers and processes for the preparation thereof  
 IN Narang, Ram S., Fairport, NY, United States  
 Fuller, Timothy J., Pittsford, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 6365323 B1 20020402  
 AI US 1999-268794 19990316 (9)  
 RLI Division of Ser. No. US 1996-705372, filed on 29 Aug 1996, now patented, Pat. No. US 5945253  
 DT Utility  
 FS GRANTED  
 LN.CNT 3071  
 INCL INCLM: 430/280.100  
 INCLS: 430/287.100; 430/311.000; 430/325.000; 522/162.000; 522/166.000; 522/170.000; 522/149.000; 525/536.000; 525/471.000; 525/534.000; 347/020.000  
 NCL NCLM: 430/280.100  
 NCLS: 347/020.000; 430/287.100; 430/311.000; 430/325.000; 522/149.000; 522/162.000; 522/166.000; 522/170.000; 525/471.000; 525/534.000; 525/536.000  
 IC [7]  
 ICM: G03F007-038  
 ICS: G03F007-26  
 EXF 430/280.1; 430/287.1; 430/197; 430/18; 430/311; 430/325; 522/162; 522/166; 522/170; 522/149  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 12 OF 55 USPATFULL

Full Text	Citing References
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AN 2001:215140 USPATFULL  
 TI High performance UV and heat crosslinked or chain extended polymers  
 IN Smith, Thomas W., Penfield, NY, United States  
 Fuller, Timothy J., Pittsford, NY, United States  
 Narang, Ram S., Fairport, NY, United States  
 Luca, David J., Rochester, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 6323301 B1 20011127  
 AI US 2000-635913 20000810 (9)  
 RLI Division of Ser. No. US 1998-221690, filed on 23 Dec 1998 Division of Ser. No. US 1996-705488, filed on 29 Aug 1996, now patented, Pat. No. US 6124372  
 DT Utility  
 FS GRANTED  
 LN.CNT 5695  
 INCL INCLM: 528/125.000  
 INCLS: 528/127.000; 528/128.000; 528/170.000; 528/171.000; 528/172.000; 528/174.000; 528/196.000; 528/220.000; 528/226.000; 528/228.000; 528/310.000; 528/373.000; 528/391.000; 528/401.000; 528/405.000; 528/423.000; 522/162.000; 522/163.000; 522/164.000; 522/165.000; 522/166.000; 430/280.100; 430/270.100; 430/281.100; 347/020.000  
 NCL NCLM: 528/125.000  
 NCLS: 347/020.000; 430/270.100; 430/280.100; 430/281.100; 522/162.000;

522/163.000; 522/164.000; 522/165.000; 522/166.000; 528/127.000;  
528/128.000; 528/170.000; 528/171.000; 528/172.000; 528/174.000;  
528/196.000; 528/220.000; 528/226.000; 528/228.000; 528/310.000;  
528/373.000; 528/391.000; 528/401.000; 528/405.000; 528/423.000

IC [7]  
ICM: C08F002-46  
ICS: G03F007-004; B41J002-015; C08G073-22; C08G075-20; C08G065-32  
EXF 528/86; 528/125; 528/127; 528/128; 528/170; 528/171; 528/172; 528/174;  
528/196; 528/373; 528/401; 528/405; 528/423; 528/391; 528/220; 528/226;  
528/228; 528/310; 522/162; 522/163; 522/164; 522/165; 522/166;  
430/270.1; 430/280.1; 430/281.1; 347/20  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 13 OF 55 USPATFULL

Full Text	Citing References
AN 2001:169644 USPATFULL	
TI Bonding process	
IN DeLouise, Lisa A., Rochester, NY, United States	
Luca, David J., Rochester, NY, United States	
PA Xerox Corporation (U.S. corporation)	
PI US 2001025690 A1 20011004	
US 6485130 B2 20021126	
AI US 2001-844371 A1 20010427 (9)	
RLI Continuation of Ser. No. US 1998-105501, filed on 26 Jun 1998, PENDING	
DT Utility	
FS APPLICATION	
LN.CNT 2715	
INCL INCLM: 156/334.000	
INCLS: 156/272.200	
NCL NCLM: 347/063.000	
NCLS: 347/064.000; 347/065.000; 428/167.000	
IC [7]	
ICM: B32B031-00	
ICS: C09J001-00	

L7 ANSWER 14 OF 55 USPATFULL

Full Text	Citing References
AN 2001:130708 USPATFULL	
TI Bonding process	
IN DeLouise, Lisa A., Rochester, NY, United States	
Luca, David J., Rochester, NY, United States	
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)	
PI US 6273985 B1 20010814	
AI US 1998-105501 19980626 (9)	
DT Utility	
FS GRANTED	
LN.CNT 2572	
INCL INCLM: 156/273.300	
INCLS: 156/273.500; 156/275.500; 156/275.700; 430/286.100; 522/135.000;	
522/172.000	
NCL NCLM: 156/273.300	
NCLS: 156/273.500; 156/275.500; 156/275.700; 430/286.100; 522/135.000;	
522/172.000	
IC [7]	
ICM: B32B031-28	
EXF 156/273.3; 156/273.5; 156/275.1; 156/275.3; 156/275.5; 156/275.7;	
156/330; 156/327; 522/135; 522/172; 430/281.1; 430/286.1; 430/287.1	

L7 ANSWER 15 OF 55 USPATFULL

Full Text	Citing References
AN 2001:130273 USPATFULL	



TI Aqueous developable high performance curable polymers  
 IN Narang, Ram S., Fairport, NY, United States  
 Fuller, Timothy J., Pittsford, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 6273543 B1 20010814  
 AI US 1999-247104 19990209 (9)  
 RLI Division of Ser. No. US 1996-697760, filed on 29 Aug 1996, now patented,  
 Pat. No. US 6007877  
 DT Utility  
 FS GRANTED  
 LN.CNT 4069  
 INCL INCLM: 347/020.000  
 INCLS: 347/065.000; 522/162.000; 522/163.000; 522/164.000; 522/165.000;  
 522/166.000; 528/125.000; 528/220.000; 528/226.000; 528/228.000;  
 528/229.000; 528/391.000; 528/398.000; 528/421.000; 528/423.000;  
 528/167.000; 528/168.000; 528/171.000; 528/205.000; 528/211.000  
 NCL NCLM: 347/020.000  
 NCLS: 347/065.000; 522/162.000; 522/163.000; 522/164.000; 522/165.000;  
 522/166.000; 528/125.000; 528/167.000; 528/168.000; 528/171.000;  
 528/205.000; 528/211.000; 528/220.000; 528/226.000; 528/228.000;  
 528/229.000; 528/391.000; 528/398.000; 528/421.000; 528/423.000  
 IC [7]  
 ICM: B41J002-01  
 ICS: C08G075-02; C08G075-14; C08G075-23; C08G075-30  
 EXF 522/162; 522/163; 522/166; 522/164; 522/165; 347/20; 347/65; 528/125;  
 528/220; 528/226; 528/228; 528/229; 528/391; 528/398; 528/421; 528/423;  
 528/167; 528/168; 528/171; 528/205; 528/211; 430/270.1; 430/280.1;  
 430/281.1; 430/286.1  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 16 OF 55 USPATFULL

Full Text	Citing References
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AN 2001:119313 USPATFULL  
 TI Method of manufacturing material for forming insulating film  
 IN Suzuki, Hidenori, Morigayama-cho, Japan  
 Kakinoki, Katsuyuki, Morigayama-cho, Japan  
 Nakase, Yoshihisa, Taki Gun, Japan  
 Nishikawa, Michinori, Ibaraki, Japan  
 Okada, Takashi, Ibaraki, Japan  
 Yamada, Kinji, Ibaraki, Japan  
 PA JSR Corporation, Tokyo, Japan (non-U.S. corporation)  
 PI US 2001009936 A1 20010726  
 AI US 2001-760784 A1 20010117 (9)  
 PRAI JP 2000-7385 20000117  
 JP 2000-175684 20000612  
 DT Utility  
 FS APPLICATION  
 LN.CNT 1446  
 INCL INCLM: 524/035.000  
 INCLS: 524/435.000; 524/448.000; 524/450.000  
 NCL NCLM: 524/035.000  
 NCLS: 524/435.000; 524/448.000; 524/450.000  
 IC [7]  
 ICM: C08J003-00  
 ICS: C08K003-34  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 17 OF 55 USPATFULL

Full Text	Citing References
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AN 2001:111229 USPATFULL  
 TI Thermal ink jet printhead and process for the preparation thereof  
 IN Narang, Ram S., Fairport, NY, United States

Kneezel, Gary A., Webster, NY, United States  
 Zhang, Bidan, Beacon, NY, United States  
 Fisher, Almon P., Rochester, NY, United States  
 Fuller, Timothy J., Pittsford, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 6260956 B1 20010717  
 AI US 1998-120746 19980723 (9)  
 DT Utility  
 FS GRANTED  
 LN.CNT 2273  
 INCL INCLM: 347/063.000  
 INCLS: 347/064.000; 347/065.000; 347/020.000; 347/054.000; 216/027.000;  
 156/145.000; 427/504.000  
 NCL NCLM: 347/063.000  
 NCLS: 156/145.000; 216/027.000; 347/020.000; 347/054.000; 347/064.000;  
 347/065.000; 427/504.000  
 IC [7]  
 ICM: B41J002-04  
 ICS: B41J002-015; G01D015-16; G11B005-127  
 EXF 347/20; 347/40; 347/47; 347/54; 347/60; 427/504; 216/27; 522/162;  
 522/163; 522/164; 522/166; 430/270.1; 430/280.1; 430/281.1; 156/145  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 18 OF 55 USPATFULL

Full Text	Citing References
AN 2001:111222 USPATFULL	
TI Photoresist compositions for ink jet printheads	
IN Smith, Thomas W., Penfield, NY, United States	
Luca, David J., Rochester, NY, United States	
McGrane, Kathleen M., Webster, NY, United States	
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)	
PI US 6260949 B1 20010717	
AI US 2000-590927 20000609 (9)	
RLI Division of Ser. No. US 1998-217330, filed on 21 Dec 1998, now patented, Pat. No. US 6139920	
DT Utility	
FS GRANTED	
LN.CNT 2856	
INCL INCLM: 347/044.000	
INCLS: 347/020.000; 347/045.000; 430/270.100; 430/280.100; 522/100.000; 522/111.000; 522/142.000; 522/143.000; 522/079.000; 522/146.000; 525/391.000; 525/392.000; 525/396.000; 525/401.000; 525/471.000	
NCL NCLM: 347/044.000	
NCLS: 347/020.000; 347/045.000; 430/270.100; 430/280.100; 522/079.000; 522/100.000; 522/111.000; 522/142.000; 522/143.000; 522/146.000; 525/391.000; 525/392.000; 525/396.000; 525/401.000; 525/471.000	
IC [7]	
ICM: B41J002-015	
ICS: G03F007-038; C08L063-10; C08L061-16; C08L071-12; C08L079-06; C08L081-06	
EXF 522/35; 522/79; 522/100; 522/103; 522/109; 522/110; 522/111; 522/112; 522/142; 522/162; 522/163; 522/164; 522/165; 522/166; 525/391; 525/396; 525/401; 525/404; 525/407; 525/471; 528/87; 427/510; 427/520; 216/27; 347/44; 347/20; 347/45; 264/494; 264/496; 430/270.1; 430/280.1	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.	

L7 ANSWER 19 OF 55 USPATFULL

Full Text	Citing References
AN 2001:39361 USPATFULL	
TI Hydroxyalkylated high performance curable polymers	
IN Narang, Ram S., Fairport, NY, United States	
Fuller, Timothy J., Pittsford, NY, United States	

PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 6203143 B1 20010320  
 AI US 1998-159426 19980923 (9)  
 RLI Division of Ser. No. US 1996-705365, filed on 29 Aug 1996, now patented,  
 Pat. No. US 5849809  
 DT Utility  
 FS Granted  
 LN.CNT 3387  
 INCL INCLM: 347/065.000  
 INCLS: 427/510.000; 430/270.100; 430/287.100; 522/034.000; 522/039.000;  
 522/065.000; 522/139.000; 522/162.000; 522/163.000; 522/164.000;  
 522/165.000; 525/453.000; 525/540.000; 525/905.000; 525/906.000;  
 525/912.000; 528/125.000; 528/128.000; 528/168.000; 528/170.000;  
 528/175.000; 528/220.000; 528/226.000; 528/228.000  
 NCL NCLM: 347/065.000  
 NCLS: 427/510.000; 430/270.100; 430/287.100; 522/034.000; 522/039.000;  
 522/065.000; 522/139.000; 522/162.000; 522/163.000; 522/164.000;  
 522/165.000; 525/453.000; 525/540.000; 525/905.000; 525/906.000;  
 525/912.000; 528/125.000; 528/128.000; 528/168.000; 528/170.000;  
 528/175.000; 528/220.000; 528/226.000; 528/228.000  
 IC [7]  
 ICM: G03C005-00  
 ICS: G03C001-494; B41J002-04; G03F007-038; C08G065-40  
 EXF 522/65; 522/39; 522/34; 522/139; 522/162; 522/163; 522/164; 522/165;  
 528/220; 528/125; 528/128; 528/175; 528/205; 528/211; 528/226; 528/228;  
 528/170; 528/168; 525/905; 525/906; 525/912; 525/453; 525/540;  
 430/270.1; 430/287.1; 427/510; 347/20; 347/65  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 20 OF 55 USPATFULL

Full Text	Citing References
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AN 2001:36564 USPATFULL  
 TI Imaging members containing arylene ether alcohol polymers  
 IN Fuller, Timothy J., Pittsford, NY, United States  
 Yanus, John F., Webster, NY, United States  
 Pai, Damodar M., Fairport, NY, United States  
 Silvestri, Markus R., Fairport, NY, United States  
 Narang, Ram S., Macedon, NY, United States  
 Limburg, William W., Penfield, NY, United States  
 Renfer, Dale S., Webster, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 6200715 B1 20010313  
 AI US 1999-363218 19990729 (9)  
 RLI Continuation-in-part of Ser. No. US 1999-326170, filed on 4 Jun 1999  
 DT Utility  
 FS Granted  
 LN.CNT 2245  
 INCL INCLM: 430/059.600  
 INCLS: 430/096.000  
 NCL NCLM: 430/059.600  
 NCLS: 430/096.000  
 IC [7]  
 ICM: G03G005-05  
 EXF 430/59.6; 430/96; 430/58.7  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 21 OF 55 USPATFULL

Full Text	Citing References
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AN 2001:29264 USPATFULL  
 TI Crosslinkable binder for charge transport layer of a photoconductor  
 IN Fuller, Timothy J., Pittsford, NY, United States  
 Silvestri, Markus R., Fairport, NY, United States

Yanus, John F., Webster, NY, United States  
 Pai, Damodar M., Fairport, NY, United States  
 De Feo, Paul J., Sodus Point, NY, United States  
 Renfer, Dale S., Webster, NY, United States  
 Ward, Anthony T., Webster, NY, United States  
 Limburg, William W., Penfield, NY, United States  
 Hammond, Harold F., Webster, NY, United States  
 Nolley, Robert W., Stamford, CT, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 6194111 B1 20010227  
 AI US 2000-487327 20000119 (9)  
 RLI Continuation-in-part of Ser. No. US 1999-326169, filed on 4 Jun 1999,  
 now patented, Pat. No. US 6117967  
 DT Utility  
 FS Granted  
 LN.CNT 1308  
 INCL INCLM: 430/059.600  
 INCLS: 430/096.000  
 NCL NCLM: 430/059.600  
 NCLS: 430/096.000  
 IC [7]  
 ICM: G03G005-047  
 EXF 430/59.6; 430/58.35; 430/96  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 22 OF 55 USPATFULL

	Full Text	Citing References
AN	2001:18509	USPATFULL
TI	Blends containing photosensitive high performance aromatic ether curable polymers	
IN	Narang, Ram S., Fairport, NY, United States Fuller, Timothy J., Pittsford, NY, United States	
PA	Xerox Corporation, Stamford, CT, United States (U.S. corporation)	
PI	US 6184263	B1 20010206
AI	US 1998-220273	19981223 (9)
RLI	Division of Ser. No. <u>US 1996-705376</u> , filed on 29 Aug 1996, now patented, Pat. No. <u>US 5958995</u>	
DT	Utility	
FS	Granted	
LN.CNT	4961	
INCL	INCLM: 522/111.000 INCLS: 522/134.000; 522/135.000; 522/146.000; 522/141.000; 522/162.000; 522/163.000; 522/164.000; 522/165.000; 522/166.000; 522/142.000; 522/136.000; 430/270.100; 430/280.100; 525/391.000; 525/420.000; 525/471.000	
NCL	NCLM: 522/111.000 NCLS: 430/270.100; 430/280.100; 522/134.000; 522/135.000; 522/136.000; 522/141.000; 522/142.000; 522/146.000; 522/162.000; 522/163.000; 522/164.000; 522/165.000; 522/166.000; 525/391.000; 525/420.000; 525/471.000	
IC	[7] ICM: G03F007-038 ICS: C08L071-12; C08L081-06	
EXF	522/162; 522/163; 522/164; 522/165; 522/166; 522/111; 522/134; 522/146; 522/136; 522/135; 522/141; 522/142; 430/270.1; 430/280.1; 525/391; 525/471; 525/420	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L7 ANSWER 23 OF 55 USPATFULL

	Full Text	Citing References
AN	2001:10700	USPATFULL
TI	Ink jet printheads containing arylen ether alcohol polymers and	

processes for their formation

IN Fuller, Timothy J., Pittsford, NY, United States  
Yanus, John F., Webster, NY, United States  
Pai, Damodar M., Fairport, NY, United States  
Silvestri, Markus R., Fairport, NY, United States  
Narang, Ram S., Macedon, NY, United States  
Limburg, William W., Penfield, NY, United States  
Renfer, Dale S., Webster, NY, United States

PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)

PI US 6177238 B1 20010123

AI US 1999-325837 19990604 (9)

DT Utility

FS Granted

LN.CNT 3940

INCL INCLM: 430/320.000  
INCLS: 347/020.000; 347/065.000

NCL NCLM: 430/320.000  
NCLS: 347/020.000; 347/065.000

IC [7]  
ICM: B41J002-16  
ICS: B41J002-01

EXF 430/320; 347/20; 347/47; 347/65

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 24 OF 55 USPATFULL

Full Text	Citing References
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AN 2001:7804 USPATFULL

TI Imaging members containing arylene ether alcohol polymers

IN Fuller, Timothy J., Pittsford, NY, United States  
Yanus, John F., Webster, NY, United States  
Pai, Damodar M., Fairport, NY, United States  
Silvestri, Markus R., Fairport, NY, United States  
Narang, Ram S., Macedon, NY, United States  
Limburg, William W., Penfield, NY, United States  
Renfer, Dale S., Webster, NY, United States

PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)

PI US 6174636 B1 20010116

AI US 1999-326170 19990604 (9)

DT Utility

FS Granted

LN.CNT 4007

INCL INCLM: 430/058.700  
INCLS: 430/056.000; 430/059.600; 430/059.100; 430/096.000

NCL NCLM: 430/058.700  
NCLS: 430/056.000; 430/059.100; 430/059.600; 430/096.000

IC [7]  
ICM: G03G005-05

EXF 430/59.6; 430/59.1; 430/58.7; 430/96; 430/56

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 25 OF 55 USPATFULL

Full Text	Citing References
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AN 2000:158089 USPATFULL

TI High performance polymer compositions

IN Smith, Thomas W., Penfield, NY, United States  
Fuller, Timothy J., Pittsford, NY, United States  
Narang, Ram S., Fairport, NY, United States  
Luca, David J., Rochester, NY, United States

PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)

PI US 6151042 20001121

AI US 1998-221690 19981223 (9)

RLI Division of Ser. No. US 1996-705488, filed on 29 Aug 1996

DT Utility  
FS Granted  
LN.CNT 5603  
INCL INCLM: 347/020.000  
INCLS: 347/063.000; 347/064.000; 347/065.000; 522/034.000; 522/035.000;  
522/036.000; 522/162.000; 522/163.000; 522/164.000; 522/165.000;  
522/166.000; 430/270.100; 430/286.100; 430/287.100  
NCL NCLM: 347/020.000  
NCLS: 347/063.000; 347/064.000; 347/065.000; 430/270.100; 430/286.100;  
430/287.100; 522/034.000; 522/035.000; 522/036.000; 522/162.000;  
522/163.000; 522/164.000; 522/165.000; 522/166.000  
IC [7]  
ICM: B41J002-178  
ICS: B41J002-235; G03F007-038; C08F002-46  
EXF 347/20; 347/63; 347/64; 347/65; 522/34; 522/35; 522/36; 522/162;  
522/163; 522/164; 522/165; 522/166; 430/270.1; 430/286.1; 430/287.1  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 26 OF 55 USPATFULL

Full Text	Citing References
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AN 2000:145966 USPATFULL  
TI Photoresist compositions  
IN Smith, Thomas W., Penfield, NY, United States  
Luca, David J., Rochester, NY, United States  
McGrane, Kathleen M., Webster, NY, United States  
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
PI US 6139920 20001031  
AI US 1998-217330 19981221 (9)  
DT Utility  
FS Granted  
LN.CNT 3278  
INCL INCLM: 427/510.000  
INCLS: 427/520.000; 522/079.000; 522/035.000; 522/111.000; 522/146.000;  
525/391.000; 525/396.000; 525/401.000; 525/404.000; 525/407.000;  
525/471.000; 430/270.100; 430/280.100  
NCL NCLM: 427/510.000  
NCLS: 427/520.000; 430/270.100; 430/280.100; 522/035.000; 522/079.000;  
522/111.000; 522/146.000; 525/391.000; 525/396.000; 525/401.000;  
525/404.000; 525/407.000; 525/471.000  
IC [7]  
ICM: G03F007-038  
ICS: C08L063-10; C08L063-04; C08L071-12  
EXF 522/100; 522/103; 522/109; 522/110; 522/111; 522/112; 522/162; 522/163;  
522/164; 522/165; 522/166; 522/79; 522/35; 522/146; 528/87; 525/391;  
525/396; 525/401; 525/404; 525/407; 525/471; 427/510; 427/520  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 27 OF 55 USPATFULL

Full Text	Citing References
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AN 2000:128404 USPATFULL  
TI High performance polymer compositions having photosensitivity-imparting  
substituents and thermal sensitivity-imparting substituents  
IN Smith, Thomas W., Penfield, NY, United States  
Fuller, Timothy J., Pittsford, NY, United States  
Narang, Ram S., Fairport, NY, United States  
Luca, David J., Rochester, NY, United States  
PA Xerox Corporation, Stamford, CA, United States (U.S. corporation)  
PI US 6124372 20000926  
AI US 1996-705488 19960829 (8)  
DT Utility  
FS Granted  
LN.CNT 5807

INCL INCLM: 522/035.000  
INCLS: 522/077.000; 522/080.000; 522/149.000; 522/162.000; 522/163.000;  
522/165.000; 522/166.000; 522/904.000; 522/905.000; 106/020.000D;  
430/270.100; 430/280.100; 430/281.100; 347/020.000  
NCL NCLM: 522/035.000  
NCLS: 347/020.000; 430/270.100; 430/280.100; 430/281.100; 522/077.000;  
522/080.000; 522/149.000; 522/162.000; 522/163.000; 522/165.000;  
522/166.000; 522/904.000; 522/905.000  
IC [7]  
ICM: C08F002-50  
ICS: G03F007-004; B41J002-015  
EXF 522/35; 522/904; 522/905; 522/162; 522/163; 522/178; 522/149; 522/79;  
522/80; 522/165; 522/166; 430/270.1; 430/280.1; 430/281.1  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 28 OF 55 USPATFULL

Full Text	Citing References
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AN 2000:121610 USPATFULL  
TI Arylene ether alcohol polymers  
IN Fuller, Timothy J., Pittsford, NY, United States  
Yanus, John F., Webster, NY, United States  
Pai, Damodar M., Fairport, NY, United States  
Silvestri, Markus R., Fairport, NY, United States  
Narang, Ram S., Macedon, NY, United States  
Limburg, William W., Penfield, NY, United States  
Renfer, Dale S., Webster, NY, United States  
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
PI US 6117967 20000912  
AI US 1999-326169 19990604 (9)  
DT Utility  
FS Granted  
LN.CNT 3056  
INCL INCLM: 528/125.000  
INCLS: 528/127.000; 528/128.000; 528/488.000; 528/499.000; 522/111.000;  
522/146.000; 522/149.000; 522/155.000; 522/162.000; 430/270.100;  
430/280.100; 430/281.100; 430/311.000  
NCL NCLM: 528/125.000  
NCLS: 430/270.100; 430/280.100; 430/281.100; 430/311.000; 522/111.000;  
522/146.000; 522/149.000; 522/155.000; 522/162.000; 528/127.000;  
528/128.000; 528/488.000; 528/499.000  
IC [7]  
ICM: C08G014-00  
ICS: C08G008-02  
EXF 528/125; 528/127; 528/128; 528/488; 528/499; 522/111; 522/146; 522/149;  
522/155; 522/162; 430/270.1; 430/280.1; 430/281.1; 430/311  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 29 OF 55 USPATFULL

Full Text	Citing References
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AN 2000:91608 USPATFULL  
TI Halomethylated high performance curable polymers  
IN Narang, Ram S., Fairport, NY, United States  
Fuller, Timothy J., Pittsford, NY, United States  
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
PI US 6090453 20000718  
AI US 1998-163672 19980930 (9)  
RLI Division of Ser. No. US 1996-705490, filed on 29 Aug 1996, now patented,  
Pat. No. US 5863963  
DT Utility  
FS Granted  
LN.CNT 2631  
INCL INCLM: 427/504.000

INCLS: 427/510.000; 430/270.100; 430/286.100; 522/162.000; 522/163.000;  
 522/164.000; 522/165.000; 522/166.000; 156/275.300; 156/275.500;  
 528/125.000; 528/127.000; 528/128.000; 528/171.000; 528/174.000;  
 528/373.000; 528/401.000; 528/405.000

NCL NCLM: 427/504.000  
 NCLS: 156/275.300; 156/275.500; 427/510.000; 430/270.100; 430/286.100;  
 522/162.000; 522/163.000; 522/164.000; 522/165.000; 522/166.000;  
 528/125.000; 528/127.000; 528/128.000; 528/171.000; 528/174.000;  
 528/373.000; 528/401.000; 528/405.000

IC [7]  
 ICM: C08F002-46  
 ICS: G03F007-038; C08G008-02; C08G014-00

EXF 522/162; 522/163; 522/164; 522/165; 522/166; 430/270.1; 430/286.1;  
 156/272.2; 156/275.1; 156/275.3; 156/275.5; 427/504; 427/510; 528/125;  
 528/126; 528/127; 528/128; 528/171; 528/172; 528/174; 528/373; 528/401;  
 528/405; 347/20

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 30 OF 55 USPATFULL

	Full Text	Citing References
AN	2000:88242	USPATFULL
TI	Process for direct substitution of high performance polymers with unsaturated ester groups	
IN	Fuller, Timothy J., Pittsford, NY, United States Narang, Ram S., Fairport, NY, United States Smith, Thomas W., Penfield, NY, United States Luca, David J., Rochester, NY, United States Crandall, Raymond K., Pittsford, NY, United States Xerox Corporation, Stamford, CT, United States (U.S. corporation)	
PA	US 6087414	
PI	20000711	
AI	US 1998-221278	19981223 (9)
RLI	Division of Ser. No. <u>US 1996-697761</u> , filed on 29 Aug 1996, now patented, Pat. No. <u>US 5889077</u>	
DT	Utility	
FS	Granted	
LN.CNT	2580	
INCL	INCLM: 522/162.000 INCLS: 522/163.000; 522/164.000; 522/165.000; 522/166.000; 522/905.000; 528/125.000; 528/128.000; 528/127.000; 528/129.000; 528/143.000; 528/170.000; 528/171.000; 528/179.000; 528/205.000; 528/220.000; 528/227.000; 528/230.000; 528/246.000; 528/306.000; 528/391.000; 528/423.000; 528/226.000; 528/228.000; 430/270.100; 430/280.100; 430/286.100	
NCL	NCLM: 522/162.000 NCLS: 430/270.100; 430/280.100; 430/286.100; 522/163.000; 522/164.000; 522/165.000; 522/166.000; 522/905.000; 528/125.000; 528/127.000; 528/128.000; 528/129.000; 528/143.000; 528/170.000; 528/171.000; 528/179.000; 528/205.000; 528/220.000; 528/226.000; 528/227.000; 528/228.000; 528/230.000; 528/246.000; 528/306.000; 528/391.000; 528/423.000	
IC	[7] ICM: C08J003-28 ICS: G03F007-038; C08G085-00; C08G065-38; C08G073-06	
EXF	522/163; 522/162; 522/164; 522/165; 522/166; 522/905; 430/18; 430/270.1; 430/280.1; 430/286.1; 430/287.1; 430/311; 430/320; 528/220; 528/125; 528/128; 528/127; 528/129; 528/143; 528/170; 528/171; 528/179; 528/205; 528/227; 528/232; 528/246; 528/306	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 31 OF 55 USPATFULL

	Full Text	Citing References
AN	2000:14872	USPATFULL



TI Curable compositions  
IN Narang, Ram S., Fairport, NY, United States  
Fuller, Timothy J., Pittsford, NY, United States  
Smith, Thomas W., Penfield, NY, United States  
Luca, David J., Rochester, NY, United States  
Mosher, Ralph A., Rochester, NY, United States  
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
PI US 6022095 20000208  
AI US 1998-221024 19981223 (9)  
RLI Division of Ser. No. US 1996-705375, filed on 29 Aug 1996  
DT Utility  
FS Granted  
LN.CNT 5214  
INCL INCLM: 347/020.000  
INCLS: 347/054.000; 528/125.000; 528/220.000; 528/367.000; 528/370.000;  
528/391.000; 528/422.000; 522/162.000; 522/163.000; 522/164.000;  
522/165.000; 522/166.000; 430/280.100; 430/270.100; 430/186.100;  
156/273.300  
NCL NCLM: 347/020.000  
NCLS: 156/273.300; 347/054.000; 430/270.100; 430/280.100; 522/162.000;  
522/163.000; 522/164.000; 522/165.000; 522/166.000; 528/125.000;  
528/220.000; 528/367.000; 528/370.000; 528/391.000; 528/422.000  
IC [6]  
ICM: B41J002-015  
ICS: B41J002-04; G01D015-18; G03C001-72  
EXF 347/20; 347/47; 347/44; 347/54; 522/162; 522/163; 522/164; 522/165;  
522/166; 525/912; 525/913; 525/905; 525/906; 525/907; 525/931; 528/220;  
528/391; 528/125; 528/211; 528/422; 528/367; 528/370; 156/273.3;  
430/270.1; 430/280.1; 430/286.1  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 32 OF 55 USPATFULL

Full Text	Citing References
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AN 1999:170270 USPATFULL  
TI Aqueous developable high performance photosensitive curable aromatic ether polymers  
IN Narang, Ram S., Fairport, NY, United States  
Fuller, Timothy J., Pittsford, NY, United States  
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
PI US 6007877 19991228  
AI US 1996-697760 19960829 (8)  
DT Utility  
FS Granted  
LN.CNT 3899  
INCL INCLM: 427/510.000  
INCLS: 347/020.000; 347/047.000; 522/079.000; 522/080.000; 522/162.000;  
522/163.000; 522/164.000; 522/165.000; 522/166.000; 525/471.000;  
525/534.000; 525/540.000; 525/905.000; 525/906.000; 525/907.000;  
525/912.000; 528/220.000; 528/310.000; 528/372.000; 528/125.000;  
528/126.000; 528/127.000; 528/171.000; 528/174.000; 430/270.100;  
430/280.100; 430/281.100  
NCL NCLM: 427/510.000  
NCLS: 347/020.000; 347/047.000; 430/270.100; 430/280.100; 430/281.100;  
522/079.000; 522/080.000; 522/162.000; 522/163.000; 522/164.000;  
522/165.000; 522/166.000; 525/471.000; 525/534.000; 525/540.000;  
525/905.000; 525/906.000; 525/907.000; 525/912.000; 528/125.000;  
528/126.000; 528/127.000; 528/171.000; 528/174.000; 528/220.000;  
528/310.000; 528/372.000  
IC [6]  
ICM: C08F002-50  
ICS: G03F007-004; C08G008-02; C08G065-38  
EXF 522/35; 522/904; 522/905; 522/149; 522/162; 522/163; 522/178; 522/164;  
522/166; 430/270.1; 430/280.1; 430/281.1

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 33 OF 55 USPATFULL

Full Text	Citing References
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AN 1999:155808 USPATFULL  
 TI Curable compositions containing photosensitive high performance aromatic ether polymers  
 IN Narang, Ram S., Fairport, NY, United States  
 Fuller, Timothy J., Pittsford, NY, United States  
 Smith, Thomas W., Penfield, NY, United States  
 Luca, David J., Rochester, NY, United States  
 Mosher, Ralph A., Rochester, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 5994425 19991130  
 AI US 1996-705375 19960829 (8)  
 DT Utility  
 FS Granted  
 LN.CNT 5306  
 INCL INCLM: 522/035.000  
 INCLS: 522/146.000; 522/149.000; 522/162.000; 522/163.000; 522/165.000;  
 522/166.000; 522/178.000; 522/904.000; 522/905.000; 106/020.000D;  
 347/020.000; 430/270.100; 430/280.100; 430/281.100  
 NCL NCLM: 522/035.000  
 NCLS: 106/031.780; 347/020.000; 430/270.100; 430/280.100; 430/281.100;  
 522/146.000; 522/149.000; 522/162.000; 522/163.000; 522/165.000;  
 522/166.000; 522/178.000; 522/904.000; 522/905.000  
 IC [6]  
 ICM: C08F002-46  
 ICS: G03F007-004; C08L063-00; C08L071-12  
 EXF 522/35; 522/904; 522/905; 522/162; 522/163; 522/178; 522/146; 522/149;  
 522/165; 522/166; 430/270.1; 430/280.1; 430/281.1  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 34 OF 55 USPATFULL

Full Text	Citing References
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AN 1999:136568 USPATFULL  
 TI Conducting compositions  
 IN Fuller, Timothy J., Pittsford, NY, United States  
 Pai, Damodar M., Fairport, NY, United States  
 Yanus, John F., Webster, NY, United States  
 DeFeo, Paul J., Sodus Point, NY, United States  
 Silvestri, Markus R., Fairport, NY, United States  
 Narang, Ram S., Macedon, NY, United States  
 Limburg, William W., Penfield, NY, United States  
 Renfer, Dale S., Webster, NY, United States  
 Stolka, Milan, Fairport, NY, United States  
 Abkowitz, Martin A., Webster, NY, United States  
 Mosher, Ralph A., Rochester, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 5976418 19991102  
 AI US 1998-186542 19981105 (9)  
 DT Utility  
 FS Granted  
 LN.CNT 1826  
 INCL INCLM: 252/500.000  
 INCLS: 252/510.000; 252/511.000; 427/385.500; 427/058.000; 427/393.100  
 NCL NCLM: 252/500.000  
 NCLS: 252/510.000; 252/511.000; 427/058.000; 427/385.500; 427/393.100  
 IC [6]  
 ICM: H01B001-00  
 ICS: H01B001-12; H01B001-20; B05D005-12  
 EXF 252/510; 252/511; 252/500; 430/56; 430/59; 430/66; 430/96; 528/125;

528/126; 528/176; 528/185; 528/190; 528/397; 528/503; 525/390; 525/437;  
524/765; 524/779; 427/385.5; 427/58; 427/393.1

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 35 OF 55 USPATFULL

Full Text	Citing References
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AN 1999:117566 USPATFULL  
TI Blends containing photosensitive high performance aromatic ether curable polymers  
IN Narang, Ram S., Fairport, NY, United States  
Fuller, Timothy J., Pittsford, NY, United States  
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
PI US 5958995 19990928  
AI US 1996-705376 19960829 (8)  
DT Utility  
FS Granted  
LN.CNT 4535  
INCL INCLM: 522/035.000  
INCLS: 522/111.000; 522/142.000; 522/146.000; 522/162.000; 522/163.000;  
522/178.000; 522/904.000; 522/905.000; 522/165.000; 522/166.000;  
430/270.100; 430/280.100; 430/281.100; 347/220.000; 106/020.000D  
NCL NCLM: 522/035.000  
NCLS: 347/220.000; 430/270.100; 430/280.100; 430/281.100; 522/111.000;  
522/142.000; 522/146.000; 522/162.000; 522/163.000; 522/165.000;  
522/166.000; 522/178.000; 522/904.000; 522/905.000

IC [6]  
ICM: C08F002-46  
ICS: G03F007-004; C08L071-12  
EXF 522/162; 522/163; 522/178; 522/111; 522/142; 522/146; 522/35; 522/904;  
522/905; 522/165; 522/166; 430/270.1; 430/281.1; 430/280.1  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 36 OF 55 USPATFULL

Full Text	Citing References
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AN 1999:102642 USPATFULL  
TI High performance curable polymers and processes for the preparation thereof  
IN Narang, Ram S., Fairport, NY, United States  
Fuller, Timothy J., Pittsford, NY, United States  
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
PI US 5945253 19990831  
AI US 1996-705372 19960829 (8)  
DT Utility  
FS Granted  
LN.CNT 3038  
INCL INCLM: 430/280.100  
INCLS: 430/287.100; 430/311.000; 430/325.000; 522/162.000; 522/166.000;  
522/170.000; 522/149.000; 525/536.000; 525/471.000; 525/534.000  
NCL NCLM: 430/280.100  
NCLS: 430/287.100; 430/311.000; 430/325.000; 522/149.000; 522/162.000;  
522/166.000; 522/170.000; 525/471.000; 525/534.000; 525/536.000

IC [6]  
ICM: G03F007-038  
ICS: G03F007-26  
EXF 430/280.1; 430/287.1; 430/311; 430/325; 522/162; 522/166; 522/170;  
522/149; 525/471; 525/534; 525/536  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 37 OF 55 USPATFULL

Full Text	Citing References
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AN 1999:96157 USPATFULL

TI Stabilized porous, electrically conductive substrates  
 IN Kneezel, Gary A., Webster, NY, United States  
 Narang, Ram S., Fallport, NY, United States  
 Fuller, Timothy J., Pittsford, NY, United States  
 John, Peter J., Rochester, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 5939206 19990817  
 AI US 1996-705916 19960829 (8)  
 DT Utility  
 FS Granted  
 LN.CNT 2233  
 INCL INCLM: 428/480.000  
 INCLS: 428/209.000; 428/901.000; 174/256.000; 174/258.000; 174/260.000;  
 257/713.000  
 NCL NCLM: 428/480.000  
 NCLS: 174/256.000; 174/258.000; 174/260.000; 257/713.000; 428/209.000;  
 428/901.000  
 IC [6]  
 ICM: B32B027-06  
 EXF 257/701; 257/702; 257/713; 428/209; 428/480; 428/901; 174/256; 174/258;  
 174/260  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 38 OF 55 USPATFULL

Full Text	Citing References
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AN 1999:40494 USPATFULL  
 TI Process for direct substitution of high performance polymers with  
 unsaturated ester groups  
 IN Fuller, Timothy J., Pittsford, NY, United States  
 Narang, Ram S., Fairport, NY, United States  
 Smith, Thomas W., Penfield, NY, United States  
 Luca, David J., Rochester, NY, United States  
 Crandall, Raymond K., Pittsford, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 5889077 19990330  
 AI US 1996-697761 19960829 (8)  
 DT Utility  
 FS Granted  
 LN.CNT 2674  
 INCL INCLM: 522/162.000  
 INCLS: 522/163.000; 522/178.000; 522/111.000; 522/142.000; 522/146.000;  
 522/905.000; 522/035.000; 522/904.000  
 NCL NCLM: 522/162.000  
 NCLS: 522/035.000; 522/111.000; 522/142.000; 522/146.000; 522/163.000;  
 522/178.000; 522/904.000; 522/905.000  
 IC [6]  
 ICM: C08J003-28  
 EXF 522/162; 522/163; 522/178; 522/111; 522/142; 522/146; 522/35; 522/904;  
 522/905  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 39 OF 55 USPATFULL

Full Text	Citing References
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AN 1999:33726 USPATFULL  
 TI Imaging members containing high performance charge transporting polymers  
 IN Fuller, Timothy J., Pittsford, NY, United States  
 Teuscher, Leon A., Williamsville, NY, United States  
 Pai, Damodar M., Fairport, NY, United States  
 Yanus, John F., Webster, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 5882814 19990316  
 AI US 1997-976238 19971121 (8)

DT Utility  
 FS Granted  
 LN.CNT 1957  
 INCL INCLM: 430/059.000  
 INCLS: 430/096.000  
 NCL NCLM: 430/058.350  
 NCLS: 430/096.000  
 IC [6]  
 ICM: G03G005-047  
 EXF 430/58; 430/59; 430/96  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 40 OF 55 USPATFULL

Full Text	Citing References
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AN 1999:12971 USPATFULL  
 TI Halomethylated high performance curable polymers  
 IN Narang, Ram S., Fairport, NY, United States  
 Fuller, Timothy J., Pittsford, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 5863963 19990126  
 AI US 1996-705490 19960829 (8)  
 DT Utility  
 FS Granted  
 LN.CNT 2573  
 INCL INCLM: 522/162.000  
 INCLS: 522/164.000; 522/166.000; 522/079.000; 522/080.000; 525/125.000;  
 525/128.000; 525/176.000; 525/185.000; 525/190.000; 525/191.000;  
 525/193.000; 525/397.000; 525/401.000; 347/020.000; 430/270.100;  
 430/287.100  
 NCL NCLM: 522/162.000  
 NCLS: 347/020.000; 430/270.100; 430/287.100; 522/079.000; 522/080.000;  
 522/164.000; 522/166.000; 525/125.000; 525/128.000; 525/176.000;  
 525/185.000; 525/190.000; 525/191.000; 525/193.000; 525/397.000;  
 525/401.000  
 IC [6]  
 ICM: C08F002-46  
 ICS: C08F283-00; C08G014-00  
 EXF 522/35; 522/904; 522/905; 522/162; 522/163; 522/178; 522/149; 522/79;  
 522/80; 522/165; 522/166; 522/164; 525/125; 525/128; 525/176; 525/185;  
 525/190; 525/191; 525/193; 525/397; 525/401; 347/20; 430/270.1;  
 430/287.1

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 41 OF 55 USPATFULL

Full Text	Citing References
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AN 1998:157410 USPATFULL  
 TI Hydroxyalkylated high performance curable polymers  
 IN Narang, Ram S., Fairport, NY, United States  
 Fuller, Timothy J., Pittsford, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 5849809 19981215  
 AI US 1996-705365 19960829 (8)  
 DT Utility  
 FS Granted  
 LN.CNT 3228  
 INCL INCLM: 522/035.000  
 INCLS: 522/149.000; 522/162.000; 522/163.000; 522/165.000; 522/166.000;  
 522/904.000; 522/905.000; 522/178.000; 430/280.100; 430/270.100;  
 430/287.100; 430/286.100; 347/020.000; 427/510.000; 427/517.000;  
 427/520.000  
 NCL NCLM: 522/035.000  
 NCLS: 347/020.000; 427/510.000; 427/517.000; 427/520.000; 430/270.100;

430/280.100; 430/286.100; 430/287.100; 522/149.000; 522/162.000;  
522/163.000; 522/165.000; 522/166.000; 522/178.000; 522/904.000;  
522/905.000

IC [6]  
ICM: C08L081-06  
ICS: C08L075-16; C08L071-12  
EXF 522/35; 522/904; 522/905; 522/149; 522/162; 522/163; 522/178; 522/165;  
522/166; 347/20; 430/270.1; 430/280.1; 430/286.1; 430/287.1; 427/510;  
427/517; 427/520

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 42 OF 55 USPATFULL

Full Text	Citing References
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AN 1998:144181 USPATFULL  
TI Sulfo-pendent aryetherketone polymer film containing NLO chromophore  
IN Arnold, Fred E., Centerville, OH, United States  
Venkatasubramanian, Narayanan, Bellbrook, OH, United States  
PA The United States of America as represented by the Secretary of the Air  
Force, Washington, DC, United States (U.S. government)  
PI US 5837783 19981117  
AI US 1997-848444 19970508 (8)  
DT Utility  
FS Granted  
LN.CNT 252  
INCL INCLM: 525/471.000  
INCLS: 528/125.000; 528/128.000  
NCL NCLM: 525/471.000  
NCLS: 528/125.000; 528/128.000  
IC [6]  
ICM: C08G008-02  
EXF 528/125; 528/128; 528/471  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 43 OF 55 USPATFULL

Full Text	Citing References
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AN 1998:63620 USPATFULL  
TI Process for substituting haloalkylated polymers with unsaturated ester,  
ether, and alkylcarboxymethylene groups  
IN Fuller, Timothy J., Pittsford, NY, United States  
Narang, Ram S., Fairport, NY, United States  
Smith, Thomas W., Penfield, NY, United States  
Luca, David J., Rochester, NY, United States  
Crandall, Raymond K., Pittsford, NY, United States  
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
PI US 5761809 19980609  
AI US 1996-705479 19960829 (8)  
DT Utility  
FS Granted  
LN.CNT 3762  
INCL INCLM: 029/890.100  
INCLS: 528/176.000; 528/183.000; 528/185.000; 528/190.000; 528/191.000;  
528/196.000; 528/202.000; 528/373.000; 528/391.000; 528/401.000;  
528/423.000; 522/071.000; 522/165.000; 428/423.100; 428/482.000;  
029/890.100; 430/627.000  
NCL NCLM: 029/890.100  
NCLS: 347/020.000; 427/510.000; 428/423.100; 428/482.000; 430/286.100;  
430/287.100; 430/627.000; 522/071.000; 522/079.000; 522/080.000;  
522/149.000; 522/162.000; 522/163.000; 522/165.000; 522/166.000;  
528/176.000; 528/183.000; 528/185.000; 528/190.000; 528/191.000;  
528/196.000; 528/202.000; 528/373.000; 528/391.000; 528/401.000;  
528/423.000  
IC [6]

ICM: H01R043-00  
ICS: C08G063-00; C03C001-005  
EXF 528/176; 528/183; 528/190; 528/185; 528/191; 528/196; 528/202; 528/373;  
528/391; 528/401; 528/423; 522/71; 522/165; 428/423.1; 428/482;  
029/890.1; 430/627

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 44 OF 55 USPATFULL

Full Text	Citing References
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AN 1998:55022 USPATFULL  
TI Process for haloalkylation of high performance polymers  
IN Fuller, Timothy J., Pittsford, NY, United States  
Narang, Ram S., Fairport, NY, United States  
Smith, Thomas W., Penfield, NY, United States  
Luca, David J., Rochester, NY, United States  
Crandall, Raymond K., Pittsford, NY, United States  
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
PI US 5753783 19980519  
AI US 1997-920240 19970828 (8)  
RLI Division of Ser. No. US 1996-705463, filed on 29 Aug 1996, now patented,  
Pat. No. US 5739254  
DT Utility  
FS Granted  
LN.CNT 3482  
INCL INCLM: 525/471.000  
INCLS: 528/125.000; 528/126.000; 528/127.000; 528/128.000; 528/171.000;  
528/172.000; 528/174.000; 528/373.000; 528/401.000; 528/405.000;  
525/471.000; 525/534.000; 525/535.000; 525/540.000; 524/081.000;  
524/167.000; 524/284.000; 524/745.000; 522/005.000; 522/071.000;  
522/162.000; 522/167.000; 430/311.000  
NCL NCLM: 525/471.000  
NCLS: 347/020.000; 430/286.100; 430/287.100; 430/311.000; 522/005.000;  
522/071.000; 522/162.000; 522/163.000; 522/165.000; 522/166.000;  
522/167.000; 524/081.000; 524/167.000; 524/284.000; 524/745.000;  
525/534.000; 525/535.000; 525/540.000; 528/125.000; 528/126.000;  
528/127.000; 528/128.000; 528/171.000; 528/172.000; 528/174.000;  
528/373.000; 528/401.000; 528/405.000

IC [6]  
ICM: C08F283-00  
ICS: C08G014-00  
EXF 528/125; 528/126; 528/127; 528/128; 528/171; 528/172; 528/174; 528/373;  
528/401; 528/405; 525/471; 525/534; 525/535; 525/540; 524/81; 524/167;  
524/284; 524/745; 522/5; 522/71; 522/162; 522/167; 430/311

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 45 OF 55 USPATFULL

Full Text	Citing References
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AN 1998:39644 USPATFULL  
TI Process for haloalkylation of high performance polymers  
IN Fuller, Timothy J., Pittsford, NY, United States  
Narang, Ram S., Fairport, NY, United States  
Smith, Thomas W., Penfield, NY, United States  
Luca, David J., Rochester, NY, United States  
Grandall, Raymond K., Pittsford, NY, United States  
PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
PI US 5739254 19980414  
AI US 1996-705463 19960829 (8)  
DT Utility  
FS Granted  
LN.CNT 3433  
INCL INCLM: 528/125.000  
INCLS: 528/125.000; 528/126.000; 528/176.000; 528/185.000; 528/190.000;

528/191.000; 528/193.000; 528/397.000; 528/401.000; 528/503.000;  
 525/390.000; 525/437.000; 525/534.000; 525/536.000; 525/765.000;  
 525/779.000; 525/783.000  
 NCL NCLM: 528/125.000  
 NCLS: 347/065.000; 524/765.000; 524/779.000; 524/783.000; 525/390.000;  
 525/437.000; 525/534.000; 525/536.000; 528/126.000; 528/176.000;  
 528/185.000; 528/190.000; 528/191.000; 528/193.000; 528/397.000;  
 528/401.000; 528/503.000  
 IC [6]  
 ICM: C08G008-02  
 ICS: C08G014-00  
 EXF 528/125; 528/126; 528/128; 528/176; 528/185; 528/190; 528/191; 528/397;  
 528/193; 528/401; 528/503; 525/390; 525/437; 525/534; 525/536; 524/765;  
 524/779; 524/783  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 46 OF 55 USPATFULL

Full Text	Citing References
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AN 94:18144 USPATFULL  
 TI Poly(arylene ether ketone), process for producing same and its use  
 IN Matsumura, Shunichi, Iwakuni, Japan  
 Itoh, Seiji, Iwakuni, Japan  
 Inata, Hiroo, Iwakuni, Japan  
 Sadanobu, Jiro, Iwakuni, Japan  
 PA Teijin Limited, Osaka, Japan (non-U.S. corporation)  
 PI US 5290906 19940301  
 AI US 1991-644978 19910123 (7)  
 PRAI JP 1989-127742 19890523  
 JP 1989-331138 19891222  
 JP 1989-331139 19891222  
 DT Utility  
 FS Granted  
 LN.CNT 1114  
 INCL INCLM: 528/125.000  
 INCLS: 528/126.000; 528/174.000; 528/175.000; 528/220.000; 525/390.000;  
 525/534.000; 428/357.000; 428/364.000; 428/394.000; 428/411.100  
 NCL NCLM: 528/125.000  
 NCLS: 428/357.000; 428/364.000; 428/394.000; 428/411.100; 525/390.000;  
 525/534.000; 528/126.000; 528/174.000; 528/175.000; 528/220.000  
 IC [5]  
 ICM: C08G008-02  
 ICS: C08G014-00; C08G061-12; B32B009-00  
 EXF 528/125; 528/126; 528/220; 528/174; 528/175; 525/534; 525/390;  
 428/411.1; 428/394; 428/357; 428/364  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 47 OF 55 USPATFULL

Full Text	Citing References
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AN 93:105078 USPATFULL  
 TI **Polyarylene ethers**  
 IN Pfaendner, Rudolf, Rimbach/Odenwald, Germany, Federal Republic of  
 Kainmuller, Thomas, Lindenfels/Odenwald, Germany, Federal Republic of  
 Hoffmann, Kurt, Lautertal, Germany, Federal Republic of  
 Kramer, Andreas, Duedingen, Switzerland  
 Stockinger, Friedrich, Courtepin, Switzerland  
 PA Ciba-Geigy Corporation, Ardsley, NY, United States (U.S. corporation)  
 PI US 5270435 19931214  
 AI US 1992-816839 19920109 (7)  
 RLI Continuation of Ser. No. US 1990-537197, filed on 12 Jun 1990, now  
 abandoned  
 PRAI CH 1989-2343 19890623  
 CH 1990-964 19900323



DT Utility  
 FS Granted  
 LN.CNT 443  
 INCL INCLM: 528/171.000  
 INCLS: 528/125.000; 528/174.000; 528/219.000  
 NCL NCLM: 528/171.000  
 NCLS: 528/125.000; 528/174.000; 528/219.000  
 IC [5]  
 ICM: C08G075-00  
 ICS: C08G065-38  
 EXF 528/125; 528/171; 528/174; 528/219; 428/411.1; 524/611  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 48 OF 55 USPATFULL

	Full Text	Citing References
AN	93:98482	USPATFULL
TI	Cyclic poly(aryl ether) oligomers	
IN	Mullins, Michael J., Midland, MI, United States Woo, Edmund P., Midland, MI, United States Balon, Kimberly E., Midland, MI, United States Murray, Daniel J., Midland, MI, United States Chen, Cheng-Cheng C., Midland, MI, United States	
PA	The Dow Chemical Company, Midland, MI, United States (U.S. corporation)	
PI	US 5264538	19931123
AI	US 1990-544718	19900627 (7)
RLI	Continuation-in-part of Ser. No. <u>US 1989-393503</u> , filed on 14 Aug 1989, now abandoned	
DT	Utility	
FS	Granted	
LN.CNT	772	
INCL	INCLM: 528/226.000 INCLS: 528/125.000; 528/126.000; 528/128.000; 528/167.000; 528/170.000; 528/171.000; 528/174.000; 528/175.000; 528/206.000; 528/220.000; 548/417.000; 548/418.000; 548/419.000; 548/423.000; 549/011.000; 549/012.000; 549/349.000; 549/354.000	
NCL	NCLM: 528/226.000 NCLS: 528/125.000; 528/126.000; 528/128.000; 528/167.000; 528/170.000; 528/171.000; 528/174.000; 528/175.000; 528/206.000; 528/220.000; 548/417.000; 548/418.000; 548/419.000; 548/423.000; 549/011.000; 549/012.000; 549/349.000; 549/354.000	
IC	[5] ICM: C08G002-00 ICS: C08G075-00	
EXF	528/125; 528/126; 528/128; 528/167; 528/170; 528/171; 528/174; 528/175; 528/206; 528/220; 528/226; 549/11; 549/12; 549/349; 549/354; 548/423; 548/417-419	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L7 ANSWER 49 OF 55 USPATFULL

	Full Text	Citing References
AN	93:74398	USPATFULL
TI	Polymers and copolymers of high glass transition temperature from hindered phenols	
IN	Hay, Allan S., 5015 Glencairn Ave., Montreal, Quebec, Canada H3W 2B3 Kim, Whan Gi, 3575 University Avenue, Montreal, Quebec, Canada H3A 2B1	
PI	US 5243016	19930907
AI	US 1992-964900	19921022 (7)
RLI	Continuation of Ser. No. <u>US 1991-683860</u> , filed on 11 Apr 1991, now patented, Pat. No. <u>US 5182358</u>	
DT	Utility	
FS	Granted	
LN.CNT	624	

INCL INCLM: 528/191.000  
INCLS: 252/404.000; 528/098.000; 528/125.000; 528/126.000; 528/128.000;  
528/219.000; 568/730.000  
NCL NCLM: 528/191.000  
NCLS: 252/404.000; 528/098.000; 528/125.000; 528/126.000; 528/128.000;  
528/219.000; 568/730.000  
IC [5]  
ICM: C07C039-12  
EXF 528/191; 528/98; 528/125; 528/126; 528/128; 528/219; 252/404; 524/341;  
524/351; 568/730  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 50 OF 55 USPATFULL

Full Text	Citing References
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AN 93:40101 USPATFULL  
TI **Polyarylene ethers**  
IN Pfaendner, Rudolf, Rimbach/Odenwald, Germany, Federal Republic of  
Kainmuller, Thomas, Lindenfels/Odenwald, Germany, Federal Republic of  
Hoffmann, Kurt, Lautertal, Germany, Federal Republic of  
Kramer, Andreas, Dudingon, Switzerland  
Stockinger, Friedrich, Courtepin, Switzerland  
PA Ciba-Geigy Corporation, Ardsley, NY, United States (U.S. corporation)  
PI US 5212278 19930518  
AI US 1990-493058 19900313 (7)  
PRAI CH 1989-995 19890317  
DT Utility  
FS Granted  
LN.CNT 503  
INCL INCLM: 528/171.000  
INCLS: 528/125.000; 528/126.000; 528/128.000; 528/174.000; 528/175.000;  
528/219.000; 528/220.000; 528/226.000; 528/391.000; 525/390.000;  
525/534.000  
NCL NCLM: 528/171.000  
NCLS: 525/390.000; 525/534.000; 528/125.000; 528/126.000; 528/128.000;  
528/174.000; 528/175.000; 528/219.000; 528/220.000; 528/226.000;  
528/391.000  
IC [5]  
ICM: C08G075-23  
ICS: C08G008-02; C08G014-00; C08G065-38  
EXF 528/171; 528/128; 528/125; 528/174; 528/126; 528/175; 528/219; 528/220;  
528/391; 528/226; 525/390; 525/534  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 51 OF 55 USPATFULL

Full Text	Citing References
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AN 93:7190 USPATFULL  
TI Polymers and copolymers of high glass transition temperature from  
hindered phenols  
IN Hay, Allan S., 5015 Glencairn Ave., Montreal, Quebec, Canada H3W 2B3  
Kim, Whan Gi, 3575 University Avenue, Montreal, Quebec, Canada H3A 2B1  
PI US 5182358 19930126  
AI US 1991-683860 19910411 (7)  
DT Utility  
FS Granted  
LN.CNT 583  
INCL INCLM: 528/191.000  
INCLS: 252/404.000; 528/098.000; 528/125.000; 528/126.000; 528/128.000;  
528/219.000; 528/191.000; 568/730.000  
NCL NCLM: 528/191.000  
NCLS: 252/404.000; 528/098.000; 528/125.000; 528/126.000; 528/128.000;  
528/219.000; 568/730.000  
IC [5]

ICM: C07C039-12  
 EXF 528/125; 528/126; 528/128; 528/219; 528/98; 528/171; 528/191; 525/437;  
 525/450; 525/471; 525/397; 525/394; 524/425; 521/134  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 52 OF 55 USPATFULL

Full Text	Citing References
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AN 91:10896 USPATFULL  
 TI Temperature resistant aromatic polyethers  
 IN Knebel, Joachim, Darmstadt, Germany, Federal Republic of  
 Ude, Werner, Darmstadt, Germany, Federal Republic of  
 Vetter, Joachim, Darmstadt, Germany, Federal Republic of  
 PA Rohm GmbH, Darmstadt, Germany, Federal Republic of (non-U.S.  
 corporation)  
 PI US 4990588 19910205  
 AI US 1989-308110 19890208 (7)  
 PRAI DE 1988-3804988 19880218  
 DT Utility  
 FS Granted  
 LN.CNT 499  
 INCL INCLM: 528/125.000  
 INCLS: 528/125.000; 528/167.000; 528/169.000; 528/398.000  
 NCL NCLM: 528/125.000  
 NCLS: 528/167.000; 528/169.000; 528/398.000  
 IC [5]  
 ICM: C08G008-02  
 ICS: C08G079-02  
 EXF 528/167; 528/169; 528/398; 528/125  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 53 OF 55 USPATFULL

Full Text	Citing References
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AN 89:102293 USPATFULL  
 TI Thermoplastic **polyarylene ethers**  
 IN Besecke, Sigmund, Seeheim-Jugenheim, Germany, Federal Republic of  
 Knebel, Joachim, Darmstadt, Germany, Federal Republic of  
 Schroeder, Guenter, Ober-Ramstadt, Germany, Federal Republic of  
 Ude, Werner, Darmstadt-Arheilgen, Germany, Federal Republic of  
 PA Rohm GmbH, Darmstadt, Germany, Federal Republic of (non-U.S.  
 corporation)  
 PI US 4889909 19891226  
 AI US 1988-221321 19880719 (7)  
 PRAI DE 1987-3725058 19870729  
 DT Utility  
 FS Granted  
 LN.CNT 374  
 INCL INCLM: 528/125.000  
 INCLS: 528/126.000; 528/219.000; 525/390.000; 525/394.000; 525/416.000;  
 525/534.000  
 NCL NCLM: 528/125.000  
 NCLS: 525/390.000; 525/394.000; 525/416.000; 525/534.000; 528/126.000;  
 528/219.000  
 IC [4]  
 ICM: C08G008-02  
 EXF 528/125; 528/126; 528/219; 525/390; 525/394; 525/416; 525/534  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 54 OF 55 USPATFULL

Full Text	Citing References
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AN 82:25462 USPATFULL  
 TI Production of aromatic polyethers with infusible particulate substance

IN Staniland, Philip A., Tewin Wood, England  
 PA Imperial Chemical Industries Limited, London, England (non-U.S. corporation)  
 PI US 4331798 19820525  
 AI US 1979-77476 19790920 (6)  
 RLI Continuation-in-part of Ser. No. US 1979-4532, filed on 18 Jan 1979, now abandoned  
 DT Utility  
 FS Granted  
 LN.CNT 378  
 INCL INCLM: 528/125.000  
 INCLS: 528/126.000; 528/128.000; 528/174.000  
 NCL NCLM: 528/125.000  
 NCLS: 528/126.000; 528/128.000; 528/174.000  
 IC [3]  
 ICM: C08G008-02  
 ICS: C08G075-20  
 EXF 528/125; 528/126; 528/128; 528/174  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 55 OF 55 USPAT2

Full Text	Citing References
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AN 2001:169644 USPAT2  
 TI Bonding process  
 IN DeLouise, Lisa A., Rochester, NY, United States  
 Luca, David J., Rochester, NY, United States  
 PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)  
 PI US 6485130 B2 20021126  
 AI US 2001-844371 20010427 (9)  
 RLI Division of Ser. No. US 1998-105501, filed on 26 Jun 1998, now patented, Pat. No. US 6273985  
 DT Utility  
 FS GRANTED  
 LN.CNT 2657  
 INCL INCLM: 347/063.000  
 INCLS: 428/167.000; 347/064.000; 347/065.000  
 NCL NCLM: 347/063.000  
 NCLS: 347/064.000; 347/065.000; 428/167.000  
 IC [7]  
 ICM: B41J002-015  
 EXF 347/20; 347/63; 347/64; 347/65; 428/167; 156/273.3

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